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ABSTRACT

A study of female delinquent behavior used as data responses from approximately 4,000 15- to 17-year old civilian noninstitutionized youth who participated in the 1980 New Youth Survey of the National Longitudinal Surveys of Labor Market Experience. Three criterion variables were used: work values, occupational aspirations, and labor force status. Variates included delinquency, gender, ethnic origin, age, suspension from school, and current residence. Three methods of data analysis were applied: (1) logistic regression to analyze work values, employment status, and expected ability to achieve aspiration; (2) least squares regression to determine the relationship between the variates and the criterion variable "occupational aspirations"; and (3) cross-tabulation to illustrate the relationship between the delinquency index and employment status. Females exhibited higher occupational aspirations but experienced consistently lower rates of employment than males. Females suspended from school had significantly lower rates of employment and less confidence in achieving occupational aspiration. Delinquency suggested either no relationship with the criterion variables or a rather unusual inverse relationship. Current residence was not related to occupational aspirations or work values. Age was not related to occupational aspirations or expected ability to achieve aspiration. (Two tables are appended: a summary of variables and Duncan Socioeconomic Conversion.) (YLB)

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THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF VOCATIONAL EDUCATION

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FINAL REPORT

THE RELATIONSHIP BETWEEN FEMALE DELINQUENT BEHAVIOR AND WORK VALUES, OCCUPATIONAL ASPIRATIONS AND LABOR MARKET EXPERIENCE

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ABSTRACT

The purpose of this study was to determine the relationship between female delinquent behavior and work values, occupational aspirations, and labor market experience. Data for this research consisted of responses from 15-to 17-year-old civilian noninstitutionalized youth who participated in the 1980 New Youth Survey of the National Longitudinal Surveys of Labor Market Experience. Analyses were conducted on approximately 4,000 youth depending on the question analyzed. Three criterion variables were used in this study: work values, occupational aspirations, and labor force status. The following variates were examined in this study: delinquency, gender, ethnic origin, age, suspension from school, current residence (rural/urban), and whether one lived in a standard metropolitan statistical area.

Three methods of analysis were applied to the data. Logistic regression was used to analyze work values, employment status, and expected ability to achieve aspiration at age 35. Least squares regression was used to determine the relationship between the variates and the criterion variable, "occupational aspirations." Cross-tabulation was utilized to illustrate the relationship between the delinquency index and employment status.

The findings were of two types: variates that showed a distinct relationship with the criterion variables; and

those which were significant because they did not show any relationship with the criterion variables. Of the former, females exhibited higher occupational aspirations than males but still experienced consistently lower rates of employment than males. Females were more likely to respond positively to the question, "Would you go on welfare and/or apply for food stamps?", than were males. Suspension from school was far more detrimental to a student than one had been led to believe. Females suspended from school could expect significantly lower rates of employment and had less confidence in achieving their occupational aspiration at age 35 than females not suspended from school.

Delinquency suggested either no relationship with the criterion variables or a rather unusual inverse relationship. As the self-reported acts of delinquency increased so did the employment rates. There was no relationship between delinquency and occupational aspirations. Whether individuals had never committed a delinquent act, or had committed a substantial number of delinquent acts, their occupational aspiration level remained stable. Delinquency was not related to any of the work values statements, that is, many other contributing characteristics/factors had more influence over a person's work values than did the number of delinquent acts the person had reported. No relationship existed between current residence (rural, urban, SMSA) and occupational aspirations nor between current residence and work values. Age

was not related to occupational aspirations or expected ability to achieve aspiration at age 35. Further, no relationship existed between Hispanic males and seeking additional education to gain employment; Hispanic females, whose occupational aspirations were higher than those of Hispanic males, were less willing to seek additional education to gain employment than were blacks or nonblacks/non-Hispanics. Finally, a strong relationship existed between suspension from school and employment status, suggesting a need for alternative measures to preserve, not sever, the student/school ties.

Recommendations include ways to reduce inequities now existing; to integrate the school system with the juvenile justice system, thus reducing duplication of services and information gaps; and to initiate further research and pilot programs within the vocational education system so that troubled youth, indeed all youth, may become more productive members of our society.

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Chapter I

BACKGROUND

Juvenile delinquency is a widespread costly social problem. This can be seen in light of official crime statistics and employment figures describing this group. In 1982, approximately 10 million persons were arrested in the United States; 3.4 million of these were under the age of 21. The statistics become more startling when they are disaggregated; 6 percent of all persons arrested were under the age of 15; 18 percent were under 18; 35 percent were under 21 (U.S. Department of Justice, 1982).

High youth unemployment has persisted in the American economy for the past three decades. Since 1954, unemployment rates of teenagers have not fallen below 11 percent. In spite of an array of private and government efforts, youth unemployment rates have continued to rise. Unemployment rates of teenagers averaged 11.4 percent in the 1950's, 14.3 percent in the 1960's, and 16.9 percent during the seventies. Early figures for the 1980's spell no relief; the average youth unemployment rate for whites through September, 1983, rose to 20.2 percent (Lerman, 1980; U.S. Department of Labor, October, 1983). Nonwhite youth have faced the most dramatic worsening in employment prospects. Unemployment rates of nonwhite teenaged males jumped from 19 percent in the 1955-59 period to an extraordinary 48.5 percent by September, 1983 (U.S. Department of Labor, October, 1983). Moreover, the incidence of

unemployment is concentrated among those who cannot find jobs for long periods of time; in other words, unemployment becomes long-term unemployment. For these youth, the normal process of intermittent and changing jobs does not apply, and long-term negative consequences, i.e., continued unemployment and underemployment, result (American Bar Association, 1980).

The general problem of youth unemployment is aggravated for youth offenders. Some employers resist hiring offenders under any circumstances. Although employers have little understanding of the meaning of arrest records, and in spite of the legal restrictions against using such records in hiring decisions, 15 percent of employers have unyielding opposition to employing offenders, according to one study, and another 75 percent consider arrest records to be relevant information in deciding whom to hire (Miller, 1979a).

In addition to the stereotypes that these percentages imply, employment for youth offenders may be limited by structural factors, such as supervision requirements imposed by the criminal justice system, the absence of bonding, and prohibitions against licensing persons with criminal records. Parolees or probationers may face labor market difficulties due to parole conditions that restrict the kinds of jobs they may accept. Reporting requirements may cause absence from the job, and job-site visits by parole officers can disrupt the work routine. All of these factors contribute to the particular frustrations which youth offenders face

in the labor market. Furthermore, poor experiences in the labor market can interact with the forces mentioned earlier to push young people into alienation and withdrawal from the regular labor market, and into crime (Miller, 1979a).

In a study prepared for the Vice-President's Task Force on Youth Employment, Brenner (1980) found that a one percent increase in the unemployment rate of 15- to 24-year-olds was associated with a 3.27 percent increase in deaths of young people by homicide, a 2.66 percent increase in the arrests of youths, and a 3.16 percent increase in arrests of youths for narcotics violations.

The Female Juvenile Delinquent

At a time when crime rates are increasing, especially in offenses by young people, a review of signs of delinquency is appropriate. The delinquency of girls is of a different kind from the delinquency of boys. Although delinquency in both sexes inevitably reflects the ways in which personality patterns and goals interact with social expectations, boys and girls differ somewhat in their personality patterns as well as in the standards they must uphold, so that their behavior in general, and their delinquent activities in particular, follow distinctive paths. Superimposed upon these differences, moreover, are common problems arising out of similarities in their situation, e.g., adolescence. Thus, delinquency in girls is shaped by the peculiarities of the feminine status in society, as well as by all the

other difficulties that adolescents must face (Hardy & Cull, 1974).

The literature on adolescent development suggests that sex stereotyping has considerable influence on occupational expectations and work orientations of youth. An Institute for Social Research publication reports that females tend to underplan their future occupational and educational goals in terms of their academic ability compared to males. For example, girls who anticipate working in the lowest status occupations earn a higher grade average than do boys who anticipate working in medium-status occupations (Institute for Social Research, 1977). Another report concludes that the early socialization of young people is unduly limited by sex, ethnicity, and social class, and schools contribute to this problem. It further notes that girls, more often than boys, attribute academic failure to a pervasive feeling of innate inferiority rather than to a lack of work and discipline (Stern, in press).

Early Delinquent Behavior

Young girls as well as young boys begin delinquent behavior in early childhood. Some of these early signs are resentment of authority figures in the home and school, loss of interest in school and related activities, resentment of limits and discipline, confusion over inconsistent discipline, stealing or shoplifting small items, etc. Delinquency for girls tends to be concentrated at ages thirteen and over

(Ferdinand & Cavan, 1975). A Detroit study revealed that girls below the age of twelve were guilty primarily of stealing small objects, usually through shoplifting. In early adolescence, girls were referred to the police primarily for incorrigibility, truancy from home, and certain sex offenses. In mid-adolescence, girls were most frequently charged with sex offenses and disorderly conduct, with some continuation of incorrigibility and truancy from home. Girls exhibit very low rates in the aggressive forms of delinquency such as burglary, larceny, and vandalism, but much higher rates in non-violent delinquent acts such as truancy, runaway, and incorrigibility (Jordan, Sabatino & Sarri, 1980). Thus, female delinquency has been characterized as specialized (i.e., concentrating in status-offenses), while male delinquency has been viewed as diversified (i.e., less likely to specialize in a single form of delinquent behavior) (Hindelang, 1971).

According to Ryan (1983), for over a century massive efforts have been made to find the answer to the question, "What causes juvenile delinquency?" After years of looking for an answer, it has become generally accepted that there is no single cause. Rather, juvenile delinquency is the result of multiple factors occurring in various combinations. Within this context it is possible to identify some of the factors that may contribute to a predisposition to delinquent acts. These factors can be categorized as:

(1) Biological.

(2) Psychological.

(3) Sociological.

This study will be primarily concerned with the sociological factors influencing the female juvenile delinquent. Studies of social factors related to delinquency have focused on family structure, school, social class, and peer groups. These studies have generally assumed that delinquent behavior is the result of social factors rather than heredity or personality disturbances.

Ryan (1983) further states the school contributed to delinquency by failing to provide a meaningful relevant curriculum, especially for lower class females and minority youth. Students are increasingly aware of the fact that future employment opportunities will not exist for those lacking job skills. Rebellion and delinquency can be responses to the false promises of education. The curriculum that does not offer a reasonable opportunity for the student to experience success in some area may contribute to delinquency. Teaching without relating the subject matter to the needs and aspirations of the students may cause the student to question the relevancy of education and to drop out, thus perpetuating the delinquent cycle.

Vocational education can provide guidance and counseling, role models, sources of incentive skills training, and facilities for turning female delinquents around toward constructive ends. Many of the previously mentioned programs presently exist at multi-million dollar vocational-technical centers

but have not been made available to help juvenile offenders. Juvenile institutions can serve the needs of female delinquents and the community, but they cannot do both effectively until treatment becomes paramount and integrated with vocational education. If such a concept is to materialize, vocational education will need to assume a catalyst role (Paul, 1983).

Statement of the Problem

This study will be concerned with the employment patterns of female delinquents. These characteristics will be analyzed by using the responses collected in the 1980 National Longitudinal Survey of Youth (NLS) data base. From the preceding information it is clear that work values, job aspirations, and the subsequent transition to youth employment is a very complex decision-making process for adolescent females. Many psychological and social forces influence this developmental process.

The intent of this study is to conduct a more rigorous analysis of this complex decision-making process in an effort to obtain realistic and useful criteria for improved vocational education programs and services. The purpose of the investigation is to determine the relationship between female delinquent behavior and work values, occupational aspirations, and labor market experiences.

These relationships will be ascertained by attempting to find definitive answers to the following questions:

1. What is the relationship between

delinquent behavior and commitment to work values, gender, ethnic origin, age, suspension from school, and current residence?

2. What is the relationship between delinquent behavior and occupation aspirations, gender, ethnic origin, age, suspenion from school, and current residence?

3. What is the relationship between delinquent behavior and youth labor force status, gender, ethnic origin, age, suspension from school, and current residence?

4. What is the relationship between delinquent behavior and youth employment status, gender, ethnic origin, age, suspension from school, and current residence?

Answers to these research questions would greatly increase our understanding of the internal dynamics in the career decisions of delinquent students. The correlates provided by this study could assist in the development of criteria for the design of improved curriculum materials to further the career aspirations of this often neglected group. This research empasizes specific problem areas that could be alleviated through increased collaboration between the juvenile justice system, education system, and private business/industry sector.

Appendix Table A-1 illustrates the various hypothetical situations respondents were asked to comment on concerning their future attitudes and behavior. These results do reflect probability levels concerning positive or negative responses to these questions but do not constitute a cause/effect relationship between the criterion variables and variates.

Chapter II

REVIEW OF RELATED LITERATURE

Introduction

In this chapter theoretical and empirical studies from four major areas of the literature are examined; each is related to the primary issues under consideration in this research. The areas examined are: (1) social and psychological variables relating to occupational aspirations in females; (2) social and psychological variables relating to work values in female adolescents; (3) characteristics of female delinquency; and (4) delinquent youth employability consequences.

Selected Theories Related to Occupational Aspirations in Females

American sex-role ideology often constricts the nature of a female child's aspirations, as beliefs and expectations about suitable behavior for a girl usually center on the domestic realm of adult women's roles. Dovan and Adelson (1966) refer to the fact that a girl generally feels she cannot commit herself to anything but marriage; she must remain malleable enough to fit the value system of her potential spouse. Other observers note that women (with varying degrees of awareness) make career decisions on the basis of what they think men will tolerate (Harman, 1970; Hawley, 1972).

Tiedeman and O'Hara (1963) theorize a framework for occupational choice which includes factors that affect women's careers. This theory postulates life periods when a choice

must occur (when the motivating force is culturally induced), and life periods when a choice may occur (when the movtivating force is personally induced). These authors believe that culturally induced forces are more dominant in men, and that personally induced forces are more dominant in women.

Psathas (1968) describes a number of factors which he believes are part of the process of occupational choice in women. He emphasizes that an understanding of the factors which influence entry of women into occupational roles must begin with the relationship between sex role and occupational role. He cites intention to marry, time of marriage, reasons for marriage, husband's economic situation, and husband's attitude toward his wife's working, as primary factors surrounding occupational entry. Additional factors to be considered include family finances, social class, education and occupation, and values of parents.

Zytowski (1969) presented nine postulates through which he attempts to characterize the vocational development of women. These postulates are:

1. The model life role for women is described as that of homemaker.
2. The nature of the woman's role is not static: it will ultimately bear no distinction from that of men.
3. The life role of women is orderly and developmental, and may be divided into sequence according to the prominent task in each.
4. Vocational and homemaker participation are mutually exclusive. Vocational

participation constitutes departure from the homemaker role.

5. Three aspects of vocational participation are sufficient to distinguish patterns of vocational participation: age or ages of entry, span of participation, degree of participation.

6. The degree of vocational participation represented by a given occupation is defined as the proportion of men to the total workers employed in the performance of that job.

7. Women's vocational patterns may be distinguished in terms of three levels, derived from the combination of entry age, span and degree of participation, forming an ordinal scale.

8. Women's preference for a pattern of vocational participation is an internal event and is accounted for by motivational factors.

9. The pattern of vocational participation is determined jointly by preference (representing motivation) and by external (e.g., situational and environmental) and internal (e.g., ability) factors. (pp. 660-664)

Some preliminary results from a study of 3,500 women college graduates of the class of 1961 were reported by Rossi (1964). Of the sample, one-fifth had no career goals other than homemaking; not quite half reported long range career goals in traditional fields in which women predominate; only seven percent were pioneers, i.e., had long range career goals in fields dominated by men. Rossi reported that homemakers were women whose early lives were characterized by intense and extensive relationships with their families and who have strongly nurturent and dependent tendencies. These results are consistent with those of Tangri (1972), who

found that role innovators (those whose choices are of occupations now dominated by men) expect to make a life for themselves through their own efforts in contrast to the role traditionals (those whose choices are of occupations now dominated by women) who expect to live through and for others. Innovators are more autonomous, individualistic, and motivated by internally imposed demands to perform to capacity.

There is evidence that the educational level and the occupational status of a female's parents exert a strong influence on her occupational aspirations. Psathas (1968) in his article on "Occupational Choice for Women" writes:

> For daughters we suspect that the fact of her mother's having worked and the type of work she did, allowing for intergenerational differences in the availability of work opportunities and the changing role of women, provides additional motivations and role models. . . . The reasons for mother's working are also important since work for a career, self-development, earning money, or to "leave home" constitute quite different, though not necessarily unrelated, motives and present different images to the daughter concerning the role of participants. (p.262)

In a study by Tangri (1972), the two factors which have the strongest positive relationship to a daughter's choice of an innovative occupation are mother being currently employed, and the mother's job being classified also as role innovative. Both the mother's and father's education are also positively correlated with role innovation. Meier (1972) also found a strong positive relationship between

college students' attitudes toward feminine social equality and the extent of their mothers' occupational involvement.

In an investigation of the concept of the feminine role held by college-age daughter, mother, and father in 51 middle-class American families, Steinmann (1963) found agreement in mother's and daughter's feelings in that they see the feminine role as being made up of equal amounts of nurturing and achieving elements. However, she discovered a marked difference between the daughters' concept of what they consider their role to be and what they think are their fathers' expectations of them. They consider that their fathers expect them to be more traditional.

In summary, the available theoretical models suggest that environmental or social forces interact in the process of occupational choice in females. The empirical literature reflects the following: (1) traditional female sex-role prescription is not congruent with high achievement and/or aspiration; (2) those women who are either currently employed in, or aspire to, occupations now dominated by men appear different on many social, psychological, and demographic variables than do those women who are either currently employed in, or aspire to, occupations now dominated by women; and (3) a female's level of occupational aspiration appears to be influenced by her parents' occupational status and educational level.

Studies Investigating Work Values of Adolescents

In recent years, work values have received much attention, and studies of work values have probably outnumbered those concerned with vocational interests. That an individual's values play an important part in one's career and social life is a widely accepted fact for many. However, the role of work values as related to adolescents' vocational behavior is less established, and the factors which consist of predictive functions for an individual's value hierarchy are unknown.

One of the most extensive studies of work values was conducted by Rosenberg (note 1). As a result of his study, three value-complexes were developed: the self-expression complex, the external-reward complex, and the interpersonal complex. Different types of occupations were found to be representative of each value complex. Thus, people who were classified in a given complex could be expected to choose a particular type of occupation. It was observed that those who were compatible with the major value orientation of their occupational choice were less likely to change their choice than those who did not accept such a value hierarchy. Furthermore, "people tended to switch to occupations which were consistent with their value systems" (Rosenberg, 1955, p. 237). Finally, it was determined that those individuals concerned primarily with monetary success almost invariably chose occupations which provided possibilities for large earnings.

Rosenberg (1955) addressed himself entirely to the factors influencing change of occupational choice. Two major statements about the role of occupational values in the change process re-emphasized and synthesized his earlier position. First, "occupational values do influence change of occupational choice but this influence is exercised in terms of the norms of the group, not in terms of specific values" (Rosenberg, p. 253). Second, people tend to become more psychologically consistent; that is, their values tend to become more consistent with the norms of their occupational group over time. This is a result of either change of occupational choice or a change in values.

Miller (1956) found values to be important in distinguishing between those students who had made vocational choices and those who had not. Specifically, the importance the student placed on the value of security was significantly different between these groups. Additionally, the importance of social rewards such as helping people, congenial working associates, and contact with varied and stimulating people, might be useful in distinguishing between choice versus no choice.

Diploye and Anderson (1959) conducted a cross-sectional study which investigated value rankings of ninth- and twelfth-grade high school students. The sample consisted of 1,131 high school freshman and senior students attending school in urban, suburban, and semi-rural areas in central New York. Sex, when used as a variable, did not appear to affect the

results. However, when the groups were compared, differences did appear for the mean rankings of the individual values. Of the nine values studied (i.e., security, prestige, salary, interest, advancement, working conditions, relations with others, independence, and benefits), interesting work and security were ranked most important by all groups. From the findings of this study, the authors concluded that values were generally well-formed by grade nine and remained constant during the high school years.

Gribbons and Lohnes (1965) collected longitudinal data on the work values of 111 boys and girls over a period of five years from grades eight through twelve. Twelve work values were categorized, with satisfaction and interest ranking consistently first and second over the five-year period. The value rankings were fairly stable over the period from eighth through twelfth grade with the major trend being a shift from idealism to realism. Boys ranked salary and prestige higher than did girls, while girls gave higher rankings to personal contact and social service.

The value of prestige was found to be useful by Kapes (note 2) in distinguishing between students who would enroll in a vocational curriculum as opposed to an academic program. Furthermore, the importance that the value <u>prestige</u> had for the student was found to be useful in differentiating between successful and unsuccessful students. The unsuccessful academic students were found to closely resemble successful vocational students in the cognitive-socioeconomic

domain, but the unsuccessful academic students placed a higher value on prestige.

Summary

The available empirical literature reflects the following: (1) work value systems of individuals have been found to play a significant role in the occupational-choice process. The construct of work values appears to possess a valid and useful relationship to much of the students' behavior in career development (Rosenberg, 1955); (2) work values have been found to be related to sex, socioeconomic status, school achievement, occupational choice, age, interest, occupational aspiration, and personal adjustment (Diploye & Anderson, 1959); and (3) work values appear to be stable enough in the ninth grade to warrant their usefulness in the guidance process; however, they also appear to fluctuate enough in intensity and direction during high school years to make further research necessary (Gribbons & Lohnes, 1965).

Selected Variables and Their Relationship to Work Values and Job Aspirations of Adolescent Females

Educational Expectations and Achievement

The purpose of Lumpkin's (note 3) research was to examine the relationship that might exist between the self-concepts of a group of elementary school children and their achievement in reading. The subjects were 50 fifth-grade students who were either classified as underachievers or overachievers. Comparisons were made on the basis of responses to a variety of instruments designed to explore

dimensions of self-concept, teacher perception of the child, and peer status. The results indicated that the concept of self which the individual accepts influences his behavior qualitatively and may determine the direction and degree of his expression in academic work as well as in his social relationships.

Davidson and Lang (1960) conducted a study to determine the relationship between children's perceptions of their teachers' feelings toward them and the variables: self-perception, academic achievement, and classroom behavior. The subjects of the study were 89 boys and 114 girls, attending fourth, fifth, and sixth grades of a New York City public school. A check list of trait names, consisting of 35 descriptive terms, was administered to the subjects. The results showed a positive relationship between the children's self-perceptions, academic achievement, and classroom behavior.

Shafer and Polk (1967) stated that although the emphasis on education varies among parents, research indicates that school achievement is highly valued among lower class and minority-group parents. Such emphasis is reinforced by the mass-media as well as the schools themselves. Despite this stress, lower class and minority-group students frequently meet with failure in the schools. This failure generally begins early and accumulates over time. Negative consequences are often imputed by teachers and peers, as well as by parents. For example, failing students are often excluded from extracurricular activities. Most frequently,

they will not be chosen for prestige class assignments. As a result, they lose the esteem of their classmates and often their parents'. Eventually, these students are totally shunned by teachers as well as achieving classmates. As a consequence, the failing student's self-regard begins to deteriorate. The school experience becomes very bitter and unsatisfying. It may be stated that these failing students have become alienated with regard to school and all it represents. Concomitantly, they often become alienated from other parts of the establishment. Deprived of nurturance from these segments of society, alienated youth frequently must fight for a feeling of self-worth. In order to achieve this end, they may easily take a stance of counter-alienation by becoming embedded in a field of sub-cultural forces and activities.

Statistics for current school enrollment and retention show continued equalization between blacks, whites, and other groups, but for the school age population as a whole, the average attainment is no longer rising. At every age the enrollment rates for nonwhites are close to or above the rates for whites. The 1975 enrollment rates for non-whites aged 16-17, 18-19, 20-24, and 25-34 were 89.1, 51.0, 22.1, and 9.5; for whites the rates were: 89.1, 45.4, 23.4, and 8.0 (Rodriguez, 1980).

According to Rodriguez (1980) blacks show persistently higher levels of educational and occupational aspirations than whites. Although the number of black high school

seniors who plan to attend college is lower than that of whites, the proportions who say they may attend or plan to attend a college or vocational school are higher; so that fewer blacks have no post-secondary plans or aspirations. Also, fewer blacks (57 percent) than whites (71 percent) realize their senior year plans in the following year, but despite this inconsistency they continue to have somewhat higher aspirations. The data further show that at each family income level a slightly larger percentage of blacks than whites are in four-year colleges as well as in two-year vocational/technical institutions (U.S. Dept. of Commerce, 1972; U.S. DHEW, 1975-76). In total, 56 percent of white youth in the class of 1972 went on to post-secondary education, compared with 48 percent of all black and 46 percent of all Hispanic youth; by 1976, the percentages still enrolled were 25 percent, 24 percent, and 23 percent, respectively.

The high school class of 1972 was also asked, "How important is a college education today?" Forty-six percent of nonwhites and 35 percent of whites answered "very important." The same answer was given by 45 percent of those with incomes under $7,000 compared with 33 percent of those with incomes over $10,000. By 1977, 22 percent of black and 21 percent of Hispanic high school graduates between 18-34 were enrolled in college compared with 20 percent of whites. Women also have yet to receive an equitable proportion of higher degrees as their percentage of the college age population expands. Between 1965-1977

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their share rose from 34 percent to 47 percent of the master's degrees, from 11 percent to 24 percent of the doctorates and from 4 percent to 19 percent of the professional degrees. Women are rapidly moving into non-traditional fields, but are still heavily represented in home economics, library sciences, health, education, and foreign languages (Rodriguez, 1980).

A study by Crowley and Shapiro (1982) further supports the findings of Rodriguez. Using data from the 1980 National Longitudinal Survey (NLS) of Youth, the authors note that half of American youth aged 14 to 21 aspire to complete college. Minority youth also have significantly higher educational expectations than whites. It is also noted that two-thirds of the youth population express interest in occupational training beyond regular school. This strong desire for occupational training is evident among young women as well as young men, which is consistent with our findings that young women have high career aspirations relative to their counterparts of a decade ago (Shapiro & Crowley, forthcoming). Together, the data on high educational aspirations and the desire for training outside of school imply a shared belief that investment in one's own qualifications for employment will be rewarded by enhanced work opportunities.

Summary

Lumpkin (note 3) believes a positive and significant relationship exists between self-concepts and academic

achievement. A positive relationship also exists between students' perceptions of their instructors' feelings toward them and their self-perceptions and academic achievement (Davidson & Lang, 1960). Vocational self-concepts (values) seem to be significantly related to achievement in high school according to O'Hara (1966).

Shafer and Polk (1967) submit strong evidence which suggests that delinquent behavior is a partial result of adverse school experiences. Rodriguez (1980) and Crowley and Shapiro (1982) report that half of American youth aged 14 to 21 aspire to complete college. Minority youth also have significantly higher educational expectations than whites. Together, these data imply that an investment in one's own qualifications for employment will be rewarded by enhanced work opportunities (Crowley & Shapiro, 1982).

Socioeconomic Status

Probably the broadest and most significant social factor affecting human behavior is social class identification. For many years, Americans rejected the notion of social class to a point where this aspect of social living was not studied to any significant extent.

One form of socioeconomic influence comes from the parents. Dyer (1958) felt that parents are among the most influential factors in the student's occupational or educational selections. He suggested that there was general agreement between the occupational attitudes of parents

and their children. Children from families of white-collar workers were more satisfied with their parents' occupations than were children from families of blue-collar workers.

A similar study by Rosenthal (1971) found that parental satisfaction with their own lives and occupational status will better predict their sons' occupational aspirations and expectations than will parents' present income or occupational status. Also, the study reported that the availability of an adult male role model, not necessarily a present father, is positively correlated with high self-esteem, school performance, and aspirations of black male youth.

Bachman et al. (1971), in a study of family background factors that predict dropping out of school, found a high correlation between socioeconomic level of family, parental punitiveness, and dropout behavior. The report concluded that if a boy is the son of dropouts, he stands a better than average chance of becoming a dropout himself and that the better a boy reports getting along with his parents, the higher will be his self-esteem, self-concept, attitudes towards school, and feelings of personal efficacy.

An abundance of literature is available on the effects of working mothers on their children's attitudes toward work. The commonly shared conclusion is that, for both blacks and whites, the effect of the working mother on daughter's work orientations was not detrimental and, depending on the amount and quality of mother/daughter interaction, was often positive (Morgan, 1976). Studies

found correlations between working mothers and their daughters' tendencies toward independence, self-reliance, higher academic and career aspirations,and higher achievement levels (Hoffman & Nye, 1974; Lipsitz, 1977).

Osipow (1975a) explored the mother-daughter vocational relationship and believes there is an important link between a female's career orientation and her mother's employment history. A female's vocational possibilities often depend upon her financial situation and her knowledge of alternative job opportunities. Her financial state is usually determined by the socioeconomic status of her parents, and her knowledge of career alternatives is affected by her exposure to significant role models.

In conclusion, the vocational development of an individual is determined by a wide variety of forces. Pressures from peers, teachers, siblings, and parents all interact to create a network of influence which dramatically affects the direction of a young man or woman's career orientation. A positive relationship has been established between vocational aspirations and socioeconomic level.

Sex Differences

A literature review suggests two major reasons for the acknowledged disadvantages of women in the world of work. The first is sex role socialization, a process which begins at birth, continues throughout life, and is reinforced by social institutions, particularly the schools and the family.

In addition, the structure of the American labor market and the biases of employers relegate women, for the most part, to narrowly defined work opportunities and compensation levels.

Sex role socialization according to Goldberg (1974) is cited repeatedly as having an extremely strong impact on the individual woman's interaction with her surroundings, especially her dealings with work. Pressure to conform to one's sexual stereotype pervades schools, media, jobs, social situations, as well as family life, and continues from infancy through adulthood. One theory links a pattern of underachievement of high school girls to societal emphasis on intellectual achievement as being unfeminine (Goldberg, 1974). The result is a lack of confidence and low self-esteem.

The schools tend to encourage this destructive stereotyping in a variety of ways: through restrictive course offerings, stereotyping in curriculum materials, guidance and counseling biases, and personal attitudes of teachers and administrators (U.S. DHEW, 1975).

Vocational education in particular is heavily criticized for its failure to adapt to the new realities concerning an expanded female labor force. Vocational programs still channel young women into traditional female programs (clerical and homemaking) and provide only limited exposure to trade and industrial programs. This "hidden" curriculum is passed on to the female student, thus restricting her

vocational self-concept and stunting her aspirations to develop skills more useful to society and to personal satisfaction (Kaufman, 1967; U.S. DHEW, 1975).

The labor market situation of women is analyzed by several researchers who conclude that for many reasons women have been, and are, grossly under-utilized and discriminated against with respect to their potential for contribution to the economy. This situation in turn is responsible in large part for extreme disparity in earnings of male and female workers (Bergman, 1976; Sawhill, 1974; U.S. DHEW, 1976; & U.S. Department of Labor, 1980).

Perrone (1973), in a seven-year longitudinal study of 170 students in a suburban Wisconsin village, found that the students' sex difference affected their work values. More specifically, boys valued a good income more than did girls. Girls valued helping others, working with people, and having time for their family more than did boys. Senior boys valuing independence had higher IQ scores than did those valuing security. As seniors, boys had higher occupational aspirations than did girls — the first time this difference occurred in a sample from the junior high school forward.

Shapiro and Crowley (1982), using data from the 1980 Longitudinal Survey of Youth aged 14-21, concluded that there remains a large difference by sex in the occupations desired. The data suggest there is reason to believe that occupational segregation by sex will decline as more women are raised by

mothers who themselves pursue atypical careers, but barriers to advancement stemming from discrimination or misinformation still need to be addressed. All evidence points to a rapid shift of attitudes toward acceptance of full-time employment for women, suggesting that attitudinal barriers to occupational advancement of women may be weakening. Sex role attitudes still play a major role in determining aspirations for the future, not only of young women but of young men.

That the lack of treatment of female career development by existing research constitutes a major problem is indicated by Osipow (1975b) and Brayfield and Crites (1964) who commented on the neglect in this area. The relationship between the characteristics of sex differences, job aspirations, and work values is an area deeply in need of continual study. Stressing the importance of sex role identification, Mathews (1963) indicated that:

> It is important to stress that sex role identification cannot be ignored in our society. Sex role identification is unmistakable a part of everyone's life agenda. . . . It is not better or worse to be a man or woman but it "is" different. (p. 273)

Characteristics of Female Juvenile Delinquency

In predicting the behavior of the female delinquent or estimating response to treatment it is useful to determine the self-concept of the youth. The delinquent usually shows inadequate self-confidence, sees herself in negative ways, or overcompensates for these feelings by being frustrated.

Many adolescents are uneasy about their self-image. Unlike girls from middle-class families, delinquent girls have not been praised during childhood for small accomplishments. They have never felt important and have never known success. They remember their childhood as a painful experience and only recall the scoldings and beatings for something they have done wrong. It had been conveyed early to them that they were less than important, that they were a nuisance.

Rosenberg (1965) further contends the adolescent afflicted with pangs of self-contempt may develop at least two possible solutions to the problem of feelings of worthlessness:

1. She may retreat into a fantasy world.
2. She may put up a false front to others to convince them she is worthy. (p. 158)

But as is often the case with neurotic solutions, they may generate consequences more devastating than those they were designed to alleviate. One of these consequences would appear to be the feelings of isolation from the normative group.

The Delinquent Female and Family Life

One of the most important factors related to delinquent behavior is the family. It is within the family that the child internalizes basic beliefs, values, attitudes, and general patterns of behavior. The family is the primary transmitter of the culture. The family greatly shapes the personality of the child through the socialization process (Ryan, 1983).

In the last fifty years the family has undergone a major transformation in this country according to Ryan (1983). The large extended family that provided mutual aid, comfort, and protection has been replaced by a smaller unit whose members are largely self-oriented. Of the traditional functions of the family, all except procreation have been taken over wholly or in part by other social institutions. Education, guidance, care, protection, and recreation are largely in the hands of social institutions other than the family.

Ryan (1983) further states that fifty years ago it was assumed the broken home was at the root of delinquency. This idea has been replaced by the belief that disharmony and disorganization in the home contribute more to delinquency than does divorce or separation. It appears that the broken family is not as important in determining delinquency as the events that led to the broken home. Disorganization, disharmony, and tension prevailing in an intact family may contribute just as much to delinquency as the breaking-up of a marriage or family relationship. Many homes are intolerable places for children and youth. The data on "reported" child abuse and neglect clearly document this. There is growing evidence to support the high correlation between child abuse and delinquency.

According to Konopka (1966) many delinquent girls come from economically deprived families where the parents themselves live with frustration, where poverty not only means

not having money but also means ignorance, fear, and degradation. Children are a nuisance, especially when they get older and assert themselves. Delinquency rates are high among children from broken homes, and a number of studies have shown that abnormal or defective family relationships are much more prevalent among families of delinquents. Most delinquents grow up in homes where no father is present, where the mother has to be everything. These girls have no experience with a father-person. Men hardly exist, or they exist as an occasional intruder in the family. The road to a healthy development toward womanhood, through affection for the male and identification with mother, simply does not exist (p.49).

Parental deprivation and abuse seem to occur more frequently among female delinquents. The child receives inadequate attention from the mother and attempts to seek these gratifications from the father. With the onset of adolescence, this close relationship with the father (if there is a father in the home) cannot be maintained because of the sexuality of the relationship, and she seeks affection elsewhere. The price for this affection very easily becomes delinquent sexual offenses (Konopka, 1966).

From this complicated web of family relationships each child acquires her first self-concept, her first set of values, her first roles. The child who is rejected, who conceives herself as unworthy, who acquires a delinquent set of values or only a confusion of values, and who develops

nonconforming or confusing roles to play is following the pattern for future delinquent behavior.

The School

Education has taken over many of the functions formerly performed by the family. The health, recreation, morality, and teaching functions formerly performed by the family are now implemented by the school. Shafer and Polk (1967) observed:

> All children and youth must be given those skills, attitudes, and values that will enable them to perform adult activities and meet adult obligations. Public education must ensure the maximum development of general knowledge, intellectual competence, psychological ability, social skills and social awareness so that each new generation will be enlightened, individually strong, yet socially and civically responsible. (pp. 222-227)

The school obviously is not responsible for all juvenile delinquency, but the school plays a major role in the socialization of children and youth. For many children and youth, school is the most negative, punitive environment possible. They are ridiculed by peers, humiliated by teachers, and labeled as failures. There is a substantial body of literature to document the relationship between lack of academic success in school and delinquent behavior outside the school (Elliott & Voss, 1974; Jensen, 1976; Silberg & Silberg, 1971; Smith & Alexander, 1980; Wolfgang, Figlio, & Sellin, 1972). When students are placed in lower tracks in school because of low perceived ability, they become increasingly dissatisfied with school, increasingly absent and truant, and less

committed to school. It has been found that the experience of academic failure or success in school is an independent predictor of delinquency that transcends social class or race. Jensen (1976) states, "regardless of socioeconomic background, youths who experience success in school are less likely to become delinquents than those who do not. When the aspirations for success in school are not realized, the self-esteem, value of education, and commitment to school deteriorate. There are two typical responses: to drop out of school or seek others within the school in the same situation." Both responses ultimately perpetuate the delinquent cycle.

Dropouts and Delinquency

Rodriguez (1980) suggests that an interesting relationship also exists between delinquency and dropping out of school. The main reason youth drop out of school is to get away from the hostile environment. Among the chief significant variables are less academic ability, lower grade-point average in tenth grade, grade failure, dislike of school, and delinquent behavior. Taggert (1980) determined that dropout was associated with lower IQ for whites, lack of knowledge of the world of work for blacks and whites, and not being in the vocational education curriculum for whites. Project Talent data reveal that 75 percent of male and 67 percent of female dropouts come from the general curriculum; NLS data show 82 percent of white and 76 percent of black dropouts come from the general curriculum. Thus, few dropouts come from the academic or vocational tracks.

Rodriguez (1980) also determined that dropouts had higher police contact rates and self-reported delinquency when first observed. Rates of police contact, and serious police contact, occur at an accelerating rate so long as the youth stay in school. When students drop out, the rate falls suddenly to less than half its former level and continues downward. This is all the more significant because their former peers, who are going on to graduate, still have rising rates of delinquency.

According to recent data released by the U.S. Department of Education (1984), the dropout rate has increased from 22.8 percent in 1972 to 27.2 percent in 1982. Only 72 percent of students who enter the ninth grade graduate. In California, the dropout rate has climbed from 20 percent to 30 percent in 10 years. In Michigan it is up from 19 percent to 27 percent, in Colorado, from 16 percent to 24 percent. The District of Columbia has the dubious distinction of the highest dropout rate nationwide for 1982 at 44.2 percent. Minnesota claims the lowest dropout rate nationwide at 10.8 percent.

Secretary Bell (1984) states, "this trend must be reversed. The ability to attract and hold teenagers in schools through high school graduation is critical to a nation committed to equal educational opportunity, full employment and individual fulfillment" (p.7a).

The U.S. Department of Education cites 1982 census data to support Bell's philosophy:

> High school graduates have "significantly higher" life-time earnings than dropouts.
>
> Welfare rolls contain more dropouts than graduates.
>
> A high percentage of state prison inmates did not finish high school. (p.7a)

On the basis of this and other evidence, most researchers argue against retention campaigns and favor alternate credentials, less time, more options, and restructuring schools into new learning environments. It also must be noted that the problems leading to delinquency and dropout start at a very early age. Teachers and administrators must also begin equally early to encourage high educational attainment and a sense of belonging and achievement in an effort to reduce school failures.

Delinquent Youth and Employability Consequences

The experience of failure in the schools can be compounded by experiences in the labor market. For most youth, the maturation process in terms of employment is one involving intermittent periods of education and work, with frequent job and occupational changes. The experience provides knowledge about the labor market and an employment history which eventually can allay employers' fears about hiring "unstable youth." Gradually, as youth mature and gain job credentials, the transition to full-time employment is made successfully (Consortium on Education for Employment, 1981).

Some employers resist hiring offenders under any circumstances. According to Miller (1979b), 15 percent of employers

have unyielding opposition to employing offenders and another 75 percent consider arrest records to be relevant information in deciding whom to hire. In addition to the stereotypes that these percentages imply, employment for youth offenders may be limited by structural factors that criminal justice supervision may place between them and the labor market.

Unfortunately for delinquent youth this systematic learning process simply does not exist. Dropouts/delinquents who are 18 to 19 years old are two-and-a-half times as likely to be out of the labor force as graduates who are not enrolled in college — 34 percent compared to 14 percent. The ratio declines a little with age; but those 22 to 24 who have dropped out still have a nonparticipation ratio of 32 percent, twice the 15 percent ratio for graduates. Dropouts who are in the labor force have much less success in getting jobs. At age 18 to 19, 23 percent are unemployed compared with 14 percent for graduates, and by age 22 to 24, 16 percent are unemployed compared with 8 percent for graduates (U.S. Department of Labor, 1977).

Table 1

Nonparticipation and Unemployment Rates of 16- to 24-Year-Olds in 1977

	Nonparticipants		Unemployed	
	Graduates not in school, who are not in labor force as percent of population	Dropouts who are not in labor force as percent of population	Graduates not in school, who are unemployed as percent of labor force	Dropouts who are unemployed as percent of labor force
Men:				
White	4.2	9.9	7.1	14.2
Black	8.1	23.5	21.6	32.4
Women:				
White	22.8	54.4	9.3	22.1
Black	27.1	56.9	25.2	49.3

Source: Rodriguez, J.F. Youth employment: A needs assessment. In B. Linder & R. Taggert (Eds.), A review of youth employment problems, programs, and policies: Volume I, Special needs and concentrated problems. Washington, D.C.: Vice President's Task Force on Youth Employment, 1980. (ERIC Document Reproduction Service No. ED 195-665).

Note: The percentages for nonparticipants and unemployed may not be added, because the denominators are different.

The longitudinal data from Youth in Transition confirm these relationships. Five years after dropouts would have graduated, they had an unemployment rate of 15.4 percent, which was twice the 7.9 percent unemployment rate of their peers who did graduate from high school.

Are Youth Offenders Different?

Youth offenders differ in degree, not kind, from other youth at risk in the labor market. Their unemployment may be due in part to their youth, low academic achievement, lack of skills, minority status, and their disproportionate location in depressed metropolitan areas. These attributes are shared by many other youth; but for youth offenders, unemployment is also a function of their being offenders (Kropp, 1979).

The key question then about youth offenders is whether they are different from other youth in characteristics relevant to the labor market. First, are they likely to commit more crimes? In a study by Kropp (1979), 95 percent of the youth and adult respondents reported that they had engaged in some type of criminal or delinquent behavior. But, only a small proportion (one-third to one-half) of those admitting crimes are ever arrested, and an even smaller proportion (40 percent) of those arrested are ever convicted or adjudicated delinquent.

A landmark research project by Marvin Wolfgang (1977) studied the history of delinquency in a birth cohort, that is, he examined the juvenile histories of 9,945 males born in 1945 who resided in Philadelphia and were between the ages of 10 and 18. The overall probability of arrest was 35 percent. Black youth were arrested in at least 55 percent of the cases and white male youth had a 28 percent arrest rate. By age 22, the probability of arrest for the entire cohort had risen from 35 percent to 47 percent.

An unpublished study has been completed by Wolfgang and Tracy (1982) on the 1958 birth cohort in Philadelphia. The main objective of the 1958 study was the full replication of the previous study (1945). The 1958 study consisted of 28,338 subjects, 14,527 of which were females. A total of 6,545 subjects had at least one police contact by the age of 18: 4,507 were male (16 percent) and 2,038 were female (7 percent).

The results from these studies reveal that a significant proportion of youth are offenders. These findings are further supported by a study funded by the Department of Labor. Miller (1979a), estimating on the basis of Federal Bureau of Investigation records, State criminal record files, and the Philadelphia cohort study (1945), concluded that nearly 30 percent of all labor force participants have records of arrest or conviction. Obviously, not all workers with criminal records were first arrested as youth; however, counterbalancing this is the fact that arrest rates among youth, per 100,000 population, have dramatically increased in the past ten years. In short, to answer the question, "Are they more likely to commit crimes?", one might pose another question: "more likely than whom?"

Is there evidence to show that youth offenders are less reliable workers than other youth? A 1970 study for the Manpower Administration found that Job Corps trainees with arrest records had in-program success similar to non-arrestees, but had lower post-program placement. Miller

(1979a) in a study of employer evaluations reported no significant differences between offenders and non-offenders, and in some instances the offenders were rated superior (perhaps due to the use of an offender assistance employment program as a screening mechanism). Nor are offenders likely to commit crimes against their employers, co-workers, or customers, according to studies of the Federal National Bonding Program and a follow-up study of Wisconsin parolees. Thus, the evidence indicates that youth offenders generally do not differ from other young workers in their ability to perform.

This is not to state that all individual youth offenders are excellent employees. Specific subsets of youth offenders are going to be poor employment risks, but this is also true of particular groups of non-offender youths. The criteria used to screen out poor employment risks will work equally well on non-offender and offender youth. Relying on the additional evidence of a criminal record does not necessarily improve the employment screening process.

There are, however, two ways in which youth offenders may be "different" from other youth. First, because of the common belief (often correct) that employers will not hire offenders, they may be less likely to participate in the labor force. Conversely, because of their perception of being stigmatized, they may overcompensate when they do enter the labor force, seeking jobs with higher prestige than those for which they are qualified (Consortium on

Education for Employment, 1981). These "labeling" reactions can be significant factors when dealing with the unemployment consequences of youthful offenders.

In summary, youth offenders generally differ from other youth only in terms of their offender status; with few exceptions they will work as well as other youth. However, contact with the criminal justice system may adversely affect the perceptions of employers, employment and training assistance agencies, and educational agencies, as well as affecting the offender's self-esteem and labor force participation pattern.

Synthesis

Work value systems of individuals have been found to play a significant role in the occupational choice process. The construct of work values appears to possess a valid and useful relationship to much of the student's behavior in career development. Work values appear to be stable enough in the ninth grade to warrant their usefulness in the guidance process; however, they also appear to fluctuate enough in intensity and direction during high school years to make further research necessary.

Work values and job aspirations have been found to be highly related to students' age, sex, socioeconomic status, education expectations, achievement, and parents' occupation. Students' perceptions of their instructors' feelings towards them also affect students' self-perceptions and educational achievements. There is very strong evidence which suggests

that delinquent behavior is a partial result of adverse school experiences.

A chief factor in delinquent behavior continues to be major changes in the traditional family and imparted social values. The consequence of increased divorce, economic deprivation, and geographic mobility has been a deterioration in the stability of role models and values for young people. In addition, there are some indications of a greater incidence of inadequate parental supervision when both parents are employed, as well as a general trend of less parental discipline.

Schools themselves can be a source of disturbance. Lack of stimulation or intellectual challenge may leave students with few alternatives but causing trouble. Undiagnosed learning disabilities and consequent frustration, failure, and low self-esteem may be other important factors, as well as a perceived irrelevance of the curriculum to the students' "real" lives.

Alternative education programs that focus on specific needs often prove effective in reducing delinquent behavior. Goals of the programs in this study include increased self-esteem, self-understanding, vocational, occupational, and remedial education. These alternatives give adolescents more room to experiment than do traditional or authoritarian programs.

Youth offenders differ in degree, not kind, from other youth at risk in the labor market. Their unemployment may

be due in part to their youth, low academic achievement, lack of skills, minority status, or geographic location (inner city). These characteristics are also shared by many other youth, but for youth offenders, unemployment is also in part a function of their being offenders.

Chapter III

METHODOLOGY

Target Population and Sample

Data for this study were obtained from the 1980 New Youth Survey of the National Longitudinal Surveys of Labor Market Experience (NLS). Funding for the NLS was initiated early in 1965 by the Office of Manpower Policy, Evaluation and Research of the United States Department of Labor. The Center for Human Resources Research at The Ohio State University was responsible for design of the questionnaire and dispersing the data to the public. The National Opinion Research Center (NORC) at the University of Chicago was responsible for sample design and data collection (Borus, Crowley, Rumberger, Santos, & Shapiro, 1980).

The data represent the labor market experience of non-institutionalized youth (excluding youth in military) of the continental United States who were 14 through 21 years old as of January, 1979. This study will be concerned with the process of occupational choice and will include both the preparation for work and the frequently difficult period of accommodation to the labor market, when formal schooling has terminated or been completed.

The findings for this study will be derived by slicing the new youth cohort from 14 to 21 years old to include only those youth who were 15 to 17 years old as of January, 1979. This age group was selected primarily because delinquent

behavior is concentrated in this age group; also, the use of younger respondents is not appropriate in measuring labor force status or employment status, as most youth under 15 are still enrolled in school. Youth over age 17 are not classified as delinquents in many states; thus, to avoid controversy, the age group, 15 to 17 years old, was selected for this study. The sample was designed to produce data sufficient for study of the labor force behavior of all youth as well as groups traditionally marginal to the labor force (Hispanics, blacks and economically disadvantaged youth) (see Borus, 1981). In gathering data for the NLS, both personal and telephone interview methods were used. Regarding labor force participation, the respondents were questioned about their labor force activities occurring the week prior to the interview date.

Variables

Criterion Variables

Three aspects of delinquent youth employment were examined in this study: commitment to work, occupational aspirations, and labor force status.

Commitment to work values in 1979. This variable is comprised of those attitudes the respondents have accumulated over time concerning their ability to support themselves or their family. The specific questions asked where: If

at the age of 35 you could not support yourself or family would you do the following?

Seek more education to gain employment?

Go on welfare?

Enter a government-sponsored training program?

Apply for food stamps?

Shoplift?

The questionnaire numbers for the previous work-value survey are Questionnaire S22Q04A, 1979 - S22Q04E, 1979. This sequence is interpreted in the following manner: The work value questions are located in section 22 and specifically range from questions 04A-04E in the 1979 Youth Survey questionnaire booklet. The responses from these five work value questions were originally coded as 1 = probably would do that, 2 = probably would not do that, and 8 = don't know. For this study we have recoded the responses to construct individual categorical criterion variables. The new recode is yes = 1, no = 0, and change 2 = (probably would not do that) to = 0. The don't know response (8) is small enough to disregard as a missing value (see Appendix, Table A-1).

Occupational aspirations. This variable refers to the type of work the respondent:

A. Expects to engage in, five years following high school?

B. Prefers to engage in, five years following high school?

C. Expects to engage in, at age 35?

D. Hopes to achieve at age 35?

Questionnaire numbers S22Q10A, 1979, S22Q10B, 1979, S22Q01A2, 1979, and S22Q03, 1979, correspond to the previous aspiration variables. The NLS occupational codes for variables, A,B, and C (see aspiration variables) were first converted into the Duncan socioeconomic index for all occupations (see Appendix,Table A-2) to obtain an occupational prestige measure for occupations these youths are aspiring to achieve.

This index is a weighted combination of median income, median educational attainment, and the percentage of females in each of the occupations listed in the United States Census occupational classification system. The Duncan index is stable over time (Hodge, et al., 1966) and settings (Siegel, 1970).

Variable D was originally coded in the following manner: What do you think your chances are of getting into this type of work at age 35?

1. Excellent
2. Good
3. Fair
4. Poor

To convert this variable into a categorical criterion variable the following response categories were combined into a simple positive or negative situation: those responses in the categories excellent, good, and fair were recoded into a positive response (+1); those responses categorized as poor were

recoded as a negative response and equal to zero (0). By utilizing the previous variables, associations between aspirations and realistic goals/expectations were studied using five years after high school and at age 35 as base years for observation.

Labor force status. Respondent is classified as either employed, unemployed, or out of the labor force. Employed youths were those who worked for pay at least one hour, or worked at least 15 hours in a family business, during the week prior to the 1980 New Youth Survey. Unemployed youths were those who did not hold a job, but made specific efforts to find work within the past four weeks before the survey. Youths out of the labor force were considered as neither employed or not employed (see U.S. Dept. of Labor, 1982, pp. 143-146, for a further description of labor force status). The civilian labor force participation rate equaled the number of civilians classified as employed or unemployed (called the civilian labor force) divided by the number of noninstitutionalized civilians. Youths 16 to 21 years old employed and unemployed (called the labor force) and not enrolled in school, divided by the number of noninstitutionalized civilian youths, comprise the youth labor force participation rate. The employment-population ratio of the youth labor force equals the number of youth employed divided by the number in the civilian youth population. The unemployment rate is the percentage of the youth labor force who are unemployed.

Although labor force status has not been assigned a questionnaire number, it was created March 12, 1981, and is located in section 6-1 of the 1981 NLS survey booklet (Borus, 1981). Eight response categories were utilized in determining a respondent's current labor force status:

1. working
2. with job not at work
3. looking for work
4. keeping house
5. going to school
6. unable to work
7. other
8. serving in armed forces.

For this study, responses 1 and 2 are classified as employed. Response 3 is classified as unemployed. Responses 4-7 are classified as out of the labor force. Response 8, as previously mentioned, does not apply to this study.

The variable, employment status, is developed from the previous labor force statistics (see labor force status section). Employment status is coded as: 1 = employed and 0 = otherwise.

Variates

It must be noted the variates marital status, dependents, expulsion from school, and school enrollment status by age were to be included in this study. These variables have been strongly related to youth labor force participation over the past 30 years (U.S. Department of Labor, Tables A-4 and B-2, 1980). Unfortunately when all other restrictions were imposed in this study, these variables lacked a sufficient number of participating respondents qualifying for these respective characteristics. Marital status and number

of dependents (of respondent) were eliminated from this study due to the age restriction imposed on all participants (15-17 years old). Very few respondents in this age category were married and/or had dependents. Expulsion from school contained less than one percent of the entire survey sample prior to any restrictions imposed, thus making it impossible to generate any type of reliable data from this category. School enrollment status by age was eliminated because most 15- to 17-year-olds are enrolled in school and are not available for full-time employment. The reference group for this category, 15-17 years old and not enrolled in school, was too small, making it statistically inappropriate to relate school enrollment status by age to employment.

For the purpose of this study, delinquent behavior was identified from self-reported acts as stated by the NLS respondents. This data was compiled using the following format: An NLS interviewer handed the participant a form containing a description of types of activities that young people may get into trouble for. The respondent was instructed to read each item and put a check mark next to the category which best described the number of times in the last year the respondent had engaged in the activity described. When the answer sheet was complete, the respondent was instructed to put the form into an envelope and seal it to insure confidentiality. In gathering the information, the researchers separated the names of the

respondents from the answers given, and the results of the study were made public only in summary — as statistics.

Table 2

Self-Reported Delinquent Behaviors of Civilian 15- to 17-Year-Olds Ordered by Incidence

Delinquent Behavior	Percent Doing at Least Once
Consumed Alcohol	66
Smoked Marijuana/Hashish	49
Seriously Threatened to Hit or Kill Someone	38
Shoplifted	27
Fought at School or Work	26
Used Other Drugs	22
Intentionally Damaged Property	20
Sold Stolen Goods Knowingly	12
Stole Others' Belongings <$50.00	11
Stole Others' Belongings >$50.00	5

Source: Estimated from interviews with 12,686 15- to 17-year-olds conducted during the 1980 Youth Survey of the National Longitudinal Surveys of Labor Force Behavior (National Opinion Research Center & Center for Human Resource Research, 1980; Center for Human Resource Research, 1981).

A delinquency profile has been developed utilizing the ten most frequently self-reported delinquent acts committed by the participants (see preceding paragraph). This delinquency profile was then grouped into five delinquent categories depending on the number of offenses committed by the sample member. These categories ranged from 0-60 offenses and were grouped according to the following index: 0, 1-3, 4-6, 7-13, and 14-60 delinquent acts committed.

Table 3

Incidence of Self-Reported Delinquent Behavior
by Characteristics of Civilian 15- to 17-Year-Olds

Characteristic	Number[a]	Percent of Youth Population	Delinquency Index: No Acts 0	Q1 1-3	Q2 4-6	Q3 7-13	Q4 14-60
Population	10,982,300	100	.169	.204	.188	.226	.214
Gender							
Male	5,517,990	50.25	.124	.174	.169	.250	,283
Female	5,464,310	49.75	.214	.234	.235	.200	.144
Ethnic Origin							
Hispanic	716,760	6.53	.225	.243	.142	.207	.181
Black	1,481,810	13.49	.206	.330	.194	.171	.097
Nonblack, Non-Hispanic	8,783,730	79.98	.157	.180	.190	.236	.236
Age in 1980							
15	3,037,990	27.66	.182	.243	.207	.201	.165
16	4,131,070	37.62	.165	.206	.186	.230	.211
17	3,813,260	34.72	.162	.170	.173	.239	.254
Dependents in 1980							
Yes	89,050	.80	.103	.323	.060	.319	.192
No	423,220	3.90	.107	.191	.161	.210	.328
Unknown	10,470,030	95.30	.790	.486	.779	.471	.480

Table 3 continued

Characteristic	Number[a]	Percent of Youth Population	Delinquency Index: No Acts 0	Q1 1-3	Q2 4-6	Q3 7-13	Q4 14-60
High School Diploma or Equivalent in 1980							
Yes	92,730	.80	.090	.210	.240	.090	.370
No	771,240	7.00	.136	.144	.146	.244	.330
Unknown	10,118,330	92.20	.774	.646	.614	.666	.300
Residence in 1980							
Urban	2,648,400	24.16	.163	.190	.182	.233	.230
Rural	8,314,780	75.71	.186	.246	.202	.201	.162
Unknown	19,120	.10	.651	.564	.616	.566	.608

Source: See Table 2.

Note: The number of delinquent acts was determined by summing the respondents' self-reports of the following behaviors: times drank alcohol; times intentionally damaged property; times fought at school or work; times shoplifted; times stole others' belongings (<$50); times stole others' belongings (>$50); times seriously threatened to hit someone; times smoked marijuana; times used other drugs; and times sold stolen goods. Respondents may not have been arrested or convicted for any of these acts.

[a]Numbers in groups do not add to the population total in units, tens, or hundreds places due to rounding and estimation errors.

Many criminologists have used self-reports to measure delinquent behavior. Gold and Reimer (1975) were not willing to accept official delinquent figures from the F.B.I. Uniform Crime Reports as indicative of the extent or nature of delinquent behavior. They were unable to determine accurately how much crime there really is or whether there is now more, or less, crime than there was at some previous point. Reliable data collected on comparable populations at two points in time have simply not been available. Gold and Reimer report findings based on the data that had recently become available: the self-reported delinquency of comparable, and representative, samples of American boys and girls, in the first and second National Survey of Youth, in 1967 and 1972, respectively. Whether respondents are truthful in reporting their delinquent behavior under the conditions of this method (self-reports) has been the object of validation studies (Gold, 1970). These studies suggest that as many as 15 percent of the respondents may conceal some or all of their delinquent behavior; the majority, however, respond positively to the interviewer's instructions to be completely open and honest. The figures from this study document the differences in levels and kinds of delinquent behavior reported in the two time-periods. Further, an attempt is made to understand changes in the patterns of delinquent behavior by examining correlative changes in the perceptions and attitudes of American adolescents.

Gould (1969) compared self-reported and officially reported indices of delinquency for three racial groups. The intent of this study was to recognize the relationship (both empirical and theoretical) between these two measures of delinquency.

The reliability and credibility of anonymous delinquent self-reports have been studied, and results suggest that such data provides an adequate base for large-scale statistical studies. Although such a method of data collection is not totally accurate, researchers using this method must work within that limitation until other methods for collecting data are further refined.

The commitment to work values, job aspirations, and employment status of delinquents can be influenced by an almost limitless number of variables. The following variates were examined in this study: gender, ethnic origin, age suspension from school, current residence (urban/rural), and whether one lived in an SMSA.

Gender. The variate, gender, enters this study as a categorical variate (if male, or not). Originally (August 26, 1980) this variable was coded as male = 1 and female = 2. In this present study gender will be recoded in the following categorical manner: male = 1 and female = 0. Gender has been strongly related to youth labor force participation over the past 30 years (U.S. Department of Labor, Tables A-4 and B-2, 1980) as well as to delinquent behavior (Gold & Reimer, 1975).

Race. The original questionnaire (S24Q01, 1979) had the interviewer identify the race of the respondent. The response category contained three different alternatives the interviewer could relate to (see Appendix, Table A-1). The recode for this study is: black or not = 1,0, Hispanic or not = 0,1, and nonblack/non-Hispanic = reference category.

Original Response	New Category	New Code
Hispanic = 1	Hispanic or not	0,1
Black = 2	Black or not	1,0
Nonblack, non-Hispanic = 3	Nonblack/non-Hispanic	reference category

In the past 30 years, large racial differences have been observed in youth unemployment rates, with these differences widening markedly since 1966 (U.S. Department of Labor, Tables A-20 and A-21, 1980). Criminal activity and arrest records may have been interacting with racial discrimination to help cause the worsening unemployment situation for nonwhite youth in the mid-1960's (Lerman, 1980). It may be no coincidence that a sharp rise in crime rates during this period coincided with a dramatic decline in employment population ratios of nonwhite young males. With limited information on an individual's criminal background, some employers may have illegally used race as a proxy for criminal behavior. Finally, young males may have increasingly resorted to illicit occupations as an alternative to regular market jobs. If this move is more pervasive among blacks, it could account for a worsening

racial differential in youth employment and delinquency (Lerman, 1980).

Age in 1980. To determine clearly measurable patterns of delinquency among teenagers, one categorical variate was specified for age. One variate indicated whether an NLS sample member was 15 to 16 years old, and the other variate indicated whether the person was 17 years old. The reference group for age was those people 17 years old (see Appendix, Table A-1). Age has been strongly related to youth unemployment and delinquency rates. These rates have been concentrated among 16- and 17-year-olds especially among those not enrolled in school, or potential dropouts (Rodriguez, 1980; Young, Table A, 1979). Young (p.36) determined that unemployment rates among youth with no more than 10 years of schooling in 1978 were double those with 12 years of schooling and were triple those with 16 years of schooling (see Linder & Taggert, 1980; Passmore & Welch, 1983).

Suspension from school. This variable enters the study as a categorical variate. The questionnaire number is S05Q01A, 1980. The original code to this question was: Has respondent ever been suspended from school? Yes = 1, and no = 0. For the purpose of this study the coding format will remain the same. Ever been suspended from school is a proxy and a decidedly imprecise measure of delinquent behavior. Transparent in this variate are the known patterns exhibited by official delinquents. Rodriguez (1980) determined that

dropouts and delinquents exhibit a general dislike of, and alienation to, the school environment. They are less engaged in student activities and withdraw further from school activities as their delinquency persists. There seems to be a strong relationship between delinquent behavior and suspension from school (NLS, 1982).

Current residence. Respondents were originally asked in 1980 whether their residence was rural = 0, or urban = 1. No recode of the rural/urban question is necessary for this study. Respondents were also asked (1980) whether they lived in a standard metropolitan statistical area (SMSA). Response codes for this question were the following:

Not in SMSA	= 0
SMSA, not central city	= 1
SMSA, central city, DK (don't know)	= 2
SMSA, in central city	= 3

The recode for SMSA will be: Not in SMSA = 0 and, grouping the three remaining living in SMSA locations into one category, yes in SMSA = 1. Current residence urban, rural, or SMSA (1980) is a measure to determine whether youth employment and delinquent problems are more/less prevalent in specific geographic locations.

Many studies have reviewed the problems unique to rural areas concerning youth employment: geographic isolation (Miles, 1973), inadequate medical and social services, plus an eroding tax base inadequate to support quality education

(Marshall, 1976), and a pattern of outmigration to urban areas (Barton & Frazier, 1980; Belding, 1974; Marshall, 1976; Miles, 1973; Rogers, 1969) all contribute to the difficulties rural youth experience in effecting the school-to-work transition. Delinquent behavior patterns have also increased during the past 15 years from a major urban phenomenon to a serious rural problem as well (Borus, et al., 1980; and Gold & Reimer, 1975). According to Gilder (1978):

> Youth crime, one parent families, and youth joblessness have all risen by a factor of five since the mid-1950's in urban areas.

While the national youth unemployment average was 19 percent in 1976 according to the Bureau of Labor Statistics, the unemployment rate in the ghettos had reached an unofficial 40 percent. The National Urban League (1976) suggests that the real number is 60 percent. In the Bronx, only 150,000 jobs exist for a total work force of about 600,000 youths and adults. Most inner-city, unemployed youths age 14-21 are high school dropouts. The aftermath of dropping out is a crucial period in their lives: their market value is lowest; peer pressures are most intense; and the need to find some way other than education into adult society means that these youths either gain a job or stay on the streets — and usually find their way into crime. Jobs are the key alternative to youth crime in the urban areas (Robinson, 1980).

Analysis

Several methods of analysis were applied to the data including cross-tabulation and two methods of regression: logistic regression and ordinary least squares regression.

The delinquency category has been cross-tabulated with the delinquency index by the following variates: gender, race, age, suspended from school, current residence, and living in a SMSA. These variates describe the size and characteristics of the sample utilized in this study and also estimate the population parameters of this cohort to better illustrate the magnitude and seriousness of our delinquent problem nationwide.

The seven variates that describe delinquent behavior and the individual respondent were first cross-tabulated with the criterion variables: commitment to work values and employment status. Logistic regression techniques suggested by Cox (1970) and programmed by Harrell (1980) were then utilized in this aspect of the study. Ordinary least squares regression on a binary ("0", "1") criterion variable is inappropriate because, as demonstrated by Lee (1974), predicted values from the resulting equation can lie outside the 0 to +1 range. Also, because the criterion variable contains two categories, no method of estimation that fits a linear relationship with the criterion variable will be fully efficient in a statistical sense (Thiel, 1971).

This study proposes as an example that the probability, $P\ [\text{shoplifting=1}]_i$, that a respondent's positive response to shoplifting activity is estimated by the following function:

$$\Pr\ [\text{shoplifting=1}]_i = \exp(a+\sum_{j=1}^{J} X_{ij}b_j)/(1+\exp(a+\sum_{j=1}^{J} X_{ij}b_j)), \quad (1)$$

where, $\Pr\ [\text{shoplifting=1}]_i$, = estimate of $P\ [\text{shoplifting=1}]_i$,

a = estimate of intercept term

X_{ij} = predictor variable of respondent i on variate j

b_j = regression coefficient estimate for variate j,

and exp = the base of natural logarithms.

The complement of equation (1), or the probability that a respondent's response to shoplifting activity is negative, is estimated by:

$$\Pr\ [\text{shoplifting=0}]_i = 1/(1+\exp(a+\sum_{j=1}^{J} X_{ij}b_j) \quad (2)$$

which is easily seen as $1-\Pr\ [\text{shoplifting=1}]_i$.

The category of shoplifting and the variates were observed and were assumed to be measured without error. The parameters, a and b, were estimated using iterative numerical procedures to maximize the value of a likelihood function. The first partial derivative of the likelihood function (see Amemiya, 1981, equation 2.10, p. 1488) with respect to a particular variate, say variate j, evaluated at mean values of X_{ij}, or $\overline{X}_j$, equals $((\overline{\Pr}\ [\text{shoplifting=1}]\ )\ (\overline{\Pr}\ [\text{shoplifting=1}]\ ))\cdot b_j$,

where the $\overline{PR}$'s are calculated by substituting $\overline{X}_j$ for X_{ij} in equations (1) and (2). First partial derivatives describe the change in Pr $[\text{shoplifting}=1]_i$ associated with a unit change in X_j, , such as shoplifting activity performed by males compared to the shoplifting activity of females.

The fit of the statistical model to the observed data was tested with standard likelihood ratio techniques. A test statistic was computed by multiplying 2 times the difference between the log likelihood produced with all J variates in the model and the log likelihood produced with the intercept only in the model. This test statistic is distributed as a chi-squared with J degrees of freedom, and was used to attempt to reject the null hypothesis that the J variates do not explain differences in shoplifting (work values) activity.

This type of logistic regression was used on the following criterion variables:

A. Four remaining individual work value statements.

B. Three employment status (total sample, males, females).

C. One occupational aspiration (expected ability to achieve aspiration at age 35).

Labor force status was cross-tabulated with the delinquency index. The rate of employment (derived from labor force status) was cross-tabulated by the delinquency index and the

remaining characteristics utilized in this study to illustrate various effects these characteristics have on youth employment.

The occupational aspiration criterion variables were first cross-tabulated with the delinquency index and then recoded into the Duncan socioeconomic index (Appendix, Table A-2). Ordinary least squares regression, frequencies (N), means ($\overline{X}$), and standard deviations (S.D.) were used to determine the relationships between the variates and the occupational prestige levels developed from the occupational aspiration criterion variables.

Chapter IV

RESULTS

In this chapter the results of the statistical analyses are presented in the form of answers to the four research questions posed in Chapter I. That is, what are the correlates of commitment to work values, occupational aspirations, labor force status, and employment status? Where appropriate the results are compared with earlier reports discussed in the literature review and individual relationships are examined to ascertain the part they play in the overall picture of youth employment.

In an effort to make the presentation as clear as possible, many results are reported for both males and females to encourage the reader to compare these results. The male results may be treated as criterion levels against which to gauge the female results. Such a format will help develop specific conclusions and recommendations concerning this present study.

Question 1

> What is the relationship between delinquent behavior and commitment to work values, gender, ethnic origin, age, suspension from school, and current residence?

Results to this question were determined by analyzing the five logistic regression models created by the individual commitment to work values statement. The following three work value logistic equations were statistically significant

beyond conventional levels and will be reported in the following sequence: seeking more education to gain employment, going on welfare, and applying for food stamps.

Seeking More Education to Gain Employment

The model chi-squared equals 42.86 with 8 degrees of freedom, $P < .0001$. The logistic regression coefficient specifying the delinquency index was not large enough to be considered statistically different from zero. Coefficients computed for variates measuring age, suspension from school, current residence, and residing in a standard metropolitan statistical area (SMSA) were also not statistically different from zero. Other specifications for variates measuring gender and ethnic origin were computed, but the basic results did not change except for blacks. Holding all variates constant at their mean values, the change in the probability of blacks responding positively to the question, "Would you seek additional education to gain employment?", was computed. The results indicate that both black males and females have 9 of 100 greater chances of saying they would seek additional education to gain employment than do nonblacks/non-Hispanics. These results are consistent with the findings of Crowley and Shapiro (1982) which state that blacks do exhibit higher educational aspirations than all other groups.

Going on Welfare

The relationship between a willingness to go on welfare, and civilian 15- to 17-year-olds, by the delinquency index

and other characteristics, is described in Table 4. Holding all variates constant at their mean values, the change in the chances of responding positively to going on welfare was computed from equation (3) associated with each of the four remaining variates. Males have slightly less chance of responding positively to the question of whether they would go on welfare than do females. Blacks and Hispanics have a greater chance of responding positively to this question than do nonblacks/non-Hispanics; similarly, 15- and 16-year-olds have a greater chance of reacting positively to this question than do 17-year-olds.

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Table 4

Relationship of Work Values to Delinquency Index and Characteristics of Civilian Noninstitutionalized 15- to 17-Year-Olds in 1980

Characteristic	Go on Welfare (N=3917)			Apply for Food Stamps (N=3918)		
	$\bar{X}$ (Std.Dev.)	Logistic Regression Coefficient (Std.Error)	Change in chances of going on welfare associated with characteristic, holding others constant at mean[a]	$\bar{X}$ (Std. Dev.)	Logistic Regression Coefficient (Std.Error)	Change in chances of applying for food stamps associated with characteristic, holding others constant at mean[a]
Delinquency Index	7.625 (8.631)	.0004 (.005)	ns	7.653 (8.642)	.001 (.004)	ns
Gender						
Male	.524 (.499)	-.212 (.076)	4 of 100 less than females	.533 (.499)	-.268 (.069)	7 of 100 less than females
Female	.477 (.499)	re		.466 (.499)	re	
Ethnic Origin						
Black	.246 (.431)	.310 (.090)	6 of 100 greater than nonblack, non-Hispanics	.233 (.423)	.361 (.083)	9 of 100 greater than nonblacks, non-Hispanics
Hispanic	.163 (.369)	.329 (.102)	7 of 100 greater than nonblacks, non-Hispanics	.166 (.372)	.231 (.094)	6 of 100 greater than nonblacks, non-Hispanics
Nonblack, non-Hispanic	.591 (.491)	re		.602 (.490)	re	
Age						
15-16	.612 (.487)	.189 (.077)	4 of 100 greater than 17 year olds	.619 (.485)	.077 (.069)	ns
17	.388 (.487)	re		.381 (.486)	re	
Suspended from school						
Yes	.242 (.428)	.136 (.092)	ns	.234 (.423)	.175 (.085)	4 of 100 greater than students never suspended
No	.758 (.427)	re		.767 (.423)	re	
Current Residence						
Rural	.253 (.435)	re		.233 (.436)	re	
Urban	.767 (.435)	.079 (.117)	ns	.743 (.435)	.127 (.103)	ns
SMSA						
Yes	.705 (.456)	.093 (.108)	ns	.707 (.455)	-.180 (.098)	ns
No	.296 (.456)	re		.293 (.455)	re	
	Intercept	-1.132		Intercept	-.351	
	Mean of Criterion Variable	.284		Mean of Criterion Variable	.433	
	(Standard Deviation)	(.451)		(Standard Deviation)	(.496)	
	Model	36.17,8		Model	47.17,8	
	χ^2	degrees of freedom, $P < .0001$		χ^2	degrees of freedom, $P < .0001$	

Source: See Table 2; sample members with missing data were deleted from analyses.

[a] First partial derivative, evaluated at the mean, of the likelihood function maximized to estimate logistic regression coefficients. Equal to

$$\left[\exp(\hat{a} + \Sigma_j \bar{x}_{ij}\hat{b}_j)/(1+\exp(\hat{a} + \Sigma_j \bar{x}_{ij}\hat{b}_j))^2\right]\hat{b}_i,$$

where $\hat{a}$ is the estimate of intercept; $\hat{b}_j$ the estimate of logistic coefficient for variable j; $\hat{b}_i$, the estimate of logistic coefficient for characteristic of interest, and $\bar{x}_j$ the estimate of population mean for variable j.

Note: re=reference category; ns=logistic regression coefficient not statistically significant.

Applying for Food Stamps

This relationship also is described in Table 4. Four variates from this logistic regression equation were large enough to be considered statistically different from zero. Males have less chance of responding positively than do females to the question, "Would you apply for food stamps?" Blacks and Hispanics have greater chances of saying they would apply for food stamps than do nonblacks/non-Hispanics. Students suspended from school are more likely to say they would apply for food stamps given the opportunity than students never suspended from school. A separate logistic regression equation concerning the food stamp hypothetical question was computed specifically for females. The equation was statistically significant beyond conventional levels: The model chi-squared equals 27.18 with 7 degrees of freedom, $P < .001$. The results were: Black females have 14 of 100 greater chances of saying they would apply for food stamps in this hypothetical situation than do nonblack/non-Hispanic females; similarly, Hispanic females have 8 of 100 greater chances of responding positively to this question than do nonblack/non-Hispanic females. The male regression equation, although signficant ($P < .05$), produced only one value large enough to be considered statistically different from zero. Males suspended from school have 6 of 100 greater chances of saying they would apply for food stamps than do male students never suspended from school.

Entering a Government Sponsored Training Program

There is no significant relationship between the variates utilized in this study and this particular work value statement: The model chi-squared equals 7.20 with 7 degrees of freedom, $P = .40$. The total number of positive responses (95 percent) to this statement made it impossible to detect any variation between the variates.

Shoplifting

Again, there is no significant relationship between the variates utilized in this study and shoplifting: The model chi-squared equals 14.72 with 8 degrees of freedom, $P = .06$. The number of negative responses (98 percent) to the hypothetical question, "Would you shoplift?", made it impossible to distinguish any variation between the variates and shoplifting.

Question 2

> What is the relationship between delinquent behavior and occupational aspirations, gender, ethnic origin, age, suspension from school, and current residence?

Expected Ability to Achieve Aspirations at Age 35

The relationship between this expected aspiration and civilian 15- to 17-year-olds, by the delinquency index and other characteristics, was statistically significant: The model chi-squared equals 18.10 with 8 degrees of freedom, $P = .02$. The logistic regression equation produced two variates with values large enough to be considered statistically different from zero. Blacks have 2 of 100 greater

chances of saying they will attain their occupational aspiration at age 35 than do nonblacks/non-Hispanics. Those students suspended from school have 2 of 100 less chances of saying they will attain their occupational aspiration at age 35. The logistic equation for males-only concerning this criterion variable was not significant: The model chi-squared equals 6.92 with 7 degrees of freedom, $\underline{P} = .43$. The female logistic equation was significant with a model chi-squared equals 15.82 with 7 degrees of freedom, $\underline{P} = .02$. This equation produced two variates with values large enough to be considered statistically different from zero. Black females have 2 of 100 greater chances of saying they will attain their occupational aspiration at age 35 than do non-blacks/non-Hispanics. Females suspended from school have 3 of 100 less chances of saying they will attain their occupational aspiration at age 35 than do those females never suspended from school.

Occupational Aspiration Distribution

The distribution of occupational aspirations of civilian 15- to 17-year-olds, by the delinquency index and sex, is described in Table 5. The results indicate females consistently have higher aspiration levels than do males regardless of the amount of delinquent acts reported. There is no significant relationship between the delinquency index and occupational aspirations of males or females. Whether a person has never committed a delinquent act, or

has committed a substantial number of delinquent acts, the aspiration level remains stable.

Multiple regression analysis was utilized on the occupational aspiration criterion variables displayed in Table 5. The software for this task was the General Linear Models (GLM) procedure of the Statistical Analysis System. With the GLM procedure, ordinary least square methods were used to regress the values of the selected variates for the continuous measures of the criterion variables.

Table 5

Distribution of Occupational Aspirations[a] of Civilian 15- to 17-Year-Olds by Quartiles of Delinquency Index and Sex

During 1979

Occupational Aspiration	Sample Size	Delinquency Index[b]				
			Quartiles of Index > 0			
		No Reported Acts	Q1	Q2	Q3	Q4
		N X̄ (Std.dev.)	N X̄ (Std.dev.)	N X̄ (Std.dev.)	N X̄ (Std.dev.)	N X̄ (Std.dev.)
Expects to engage in five years following high school?						
Total	2572	444 42.06 (21.57)	612 40.28 (21.89)	473 38.36 (21.36)	537 39.44 (22.14)	506 35.81 (21.24)
Male	1238	150 35.66 (22.25)	254 32.31 (21.75)	216 31.81 (20.94)	290 34.10 (22.66)	328 31.41 (20.15)
Female	1334	294 45.32 (20.50)	358 45.93 (20.18)	257 43.85 (20.16)	247 45.71 (19.79)	178 43.93 (20.85)

Table 5 continued

Occupational Aspiration	Sample Size	Delinquency Index[b]				
			Quartiles of Index > 0			
		No Reported Acts	Q1	Q2	Q3	Q4
		N X (Std.dev)	N X (Std.dev)	N X (Std.dev)	N X (Std.dev)	N X (Std.dev)
Prefers to engage in five years following high school?						
Total	294	64	75	57	58	40
		47.42	44.39	49.46	40.62	48.00
		(24.08)	(24.91)	(22.64)	(23.91)	(24.76)
Male	124	22	26	23	26	27
		40.82	40.42	46.61	38.23	45.22
		(28.67)	(25.84)	(27.62)	(24.51)	(26.50)
Female	170	42	49	34	32	13
		50.88	46.49	51.39	42.56	56.23
		(20.84)	(24.40)	(18.76)	(23.61)	(19.61)

Table 5 continued

Occupational Aspiration	Sample Size	No Reported Acts N / X (Std.dev.)	Delinquency Index[b] Quartiles of Index > 0 Q1 N / X (Std.dev.)	Q2 N / X (Std.dev.)	Q3 N / X (Std.dev.)	Q4 N / X (Std.dev.)
Expects to engage in at age 35?						
Total	2928	510	680	537	634	567
		56.11	53.10	53.70	54.86	49.59
		(24.42)	(25.53)	(24.50)	(24.92)	(24.59)
Male	1607	214	323	282	383	405
		53.11	47.60	50.53	52.75	48.70
		(26.83)	(27.19)	(27.19)	(26.64)	(25.30)
Female	1321	296	357	255	251	162
		58.29	58.09	57.18	58.09	51.80
		(22.31)	(20.66)	(20.63)	(21.68)	(22.63)

Source: See Table 2

[a]Occupational aspiration variables have been converted to Duncan Occupational Status Index (See Hodge, Siegel,& Rossi, 1966) and (Siegel, 1970).

[b]Delinquency index quartiles represent self-reported acts of delinquency greater than zero with Q1 = 1-3, Q2 = 4-6, Q3 = 7-13, and Q4 = 14-60.

Expects to Engage in Five Years Following High School

The relationship between this expected aspiration and civilian 15- to 17-year-olds, by the delinquency index and other characteristics, was statistically significant. The results of this analysis revealed a multiple correlation of 0.25 and a coefficient of determination or squared multiple correlation of .061. The F value calculated was 23.63 with 8 degrees of freedom, and the probability of getting a larger F value was .0001, indicating that some variables other than chance factors may contribute to the observed relationship. Therefore, these findings were significant for interpretation.

Males expect to engage in lower occupational status jobs than do females with a net decrease of 5.19 units on the Duncan socioeconomic scale. Those youth suspended from school had a net decrease of 9.83 units on the Duncan scale vs. those youth never suspended from school, and urban youth expect to engage in higher status jobs than do rural youth with a net increase of 5.13 units. Separate regression equations were also run for males and females. The male results showed a multiple correlation of .25 and a coefficient of determination or squared multiple correlation of .061. The F value calculated was 15.01 with 7 degrees of freedom, and the probability of getting a larger F value was .0001. Males suspended from school had a net decrease of 12.26 units on the Duncan scale vs. those youth never suspended

from school. Urban males expect to engage in higher occupational status jobs than do rural males with a net increase of 6.51 units. The female regression equation, although significant (Pr >F = .0001), produced only one value large enough to be statistically different from zero. Females suspended from school may experience lower status jobs than would those females never suspended from school with a net decrease of 5.46 units on the Duncan scale.

Prefers to Engage in Five Years Following High School

All three regression equations (total sample, males, and females) were significant beyond conventional levels (Pr> F =.0001). Males prefer to engage in lower status occupations than do females with a net decrease of 11.22 units on the Duncan scale. Those youth 15 and 16 years old reported slightly lower aspiration levels than did 17-year-olds with a net decrease of 3.81 units. Youth suspended from school reported lower aspiration levels than did those students never suspended from school with a net decrease of 5.49 units. The male regression equation revealed that 15- and 16-year-old males reported lower aspirations than did 17-year-olds with a net decrease of 3.96 units on the Duncan scale. Those males suspended from school reported occupations with lower status than did males never suspended from school with a net decrease of 5.94 units. Urban males prefer higher status occupations than do rural males with a net increase of 5.09 units. The

female regression equation reveals that Hispanic females prefer higher status occupations than do nonblack/non-Hispanic females with a net increase of 3.81 units on the Duncan scale. Fifteen- and sixteen-year-old females indicate a preference for slightly lower status occupations than do 17-year-old females with a net decrease of 3.63 units. Females suspended from school prefer occupations with lower status than do those females never suspended from school with a net decrease of 5.09 units on the Duncan scale.

Occupational Aspirations at Age 35

Of the three regression equations, only the total-sample equation was statistically significant. The results of this analysis showed a multiple correlation of .24 and a coefficient of determination or squared multiple correlation of .058. The *F* value calculated was 2.19 with 8 degrees of freedom, and the probability of getting a larger *F* value was .02. The regression equation produced two variates large enough to be considered statistically different from zero: According to the Duncan index, occupational aspirations of males measured 5.88 units less than those of females; and again, according to the Duncan index, occupational aspirations of blacks measured 9.07 units less than that of nonblacks/non-Hispanics.

Question 3

What is the relationship between delinquent behavior and youth labor force status, gender, ethnic origin, age, suspension from school, and current residence?

Labor Force Status

The labor force status of civilian 15- to 17-year-olds, by the delinquency index and sex, is described in Table 6. Males have consistently higher rates of labor force participation and employment than do females. The delinquency index seems to affect the labor force and employment rates in an inverse manner for both males and females. As the number of self-reported delinquent acts increases, the rates of employment and labor force participation also increase. Of particular interest is the significant difference between Q1 and Q4 rates of employment and labor force participation for both males and females. The results of the measurement, out of the labor force, indicate that females have a slight edge over males in terms of withdrawing totally from the labor force, but males experience higher incidences of this measurement in the Q3 and Q4 delinquency indices.

Table 6

Labor Force Status by Quartiles of Delinquency Index and Sex of Civilian 15- to 17-Year-Olds During 1980

Status		Total	Delinquency Index: No Reported Acts	Q1	Q2	Q3	Q4
Sample Size (N)							
	Male	1897	253	392	322	455	475
	Female	1869	428	497	351	352	241
	Total	3766	681	889	673	807	716
In the Labor Force							
	Male	1083	131	198	171	279	304
	Female	926	176	199	187	205	159
	Total	2009	307	397	358	484	463
Labor Force Participation Rate (In the Labor Force ÷ N x 100)	Male	57.09%	51.78%	50.51%	53.11%	61.32%	64.00%
	Female	49.55%	41.12%	40.04%	53.28%	58.24%	65.98%
	Mean	53.32%	46.45%	45.28%	53.20%	59.78%	64.99%

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Table 6 continued

Status		Total	Delinquency Index: No Reported Acts	Q1	Q2	Q3	Q4
Employed[a]	Male	688	84	123	114	187	180
	Female	589	118	112	124	135	100
	Total	1277	202	235	238	322	280
Employment/Sample Ratio (Employed ÷ N)	Male	.36	.33	.31	.35	.41	.38
	Female	.32	.28	.23	.35	.38	.42
	Mean	.34	.31	.27	.35	.40	.40
Unemployed[b]	Male	395	47	75	57	92	124
	Female	337	58	87	63	70	59
	Total	732	105	162	120	162	183
Unemployed Rate (Unemployed ÷ In the Labor Force) x 100	Male	36.47%	35.88%	37.88%	33.33%	32.97%	40.79%
	Female	36.39%	32.95%	43.72%	33.70%	34.15%	37.11%
	Mean	36.43%	34.42%	40.80%	33.52%	33.56%	38.95%

Table 6 continued

Status		Total	Delinquency Index: No Reported Acts	Q1	Q2	Q3	Q4
Out of the Labor Force[c]							
	Male	814	122	194	151	176	171
	Female	943	252	298	164	147	82
	Total	1757	374	492	315	323	253

Source: See Table 2

[a]Anyone working at least one hour a week for pay, or at least 15 hours per week in a family business without pay is employed.

[b]Anyone without a job and actively seeking work is unemployed.

[c]Anyone without a job and not looking for one is out of the labor force.

Question 4

What is the relationship between delinquent behavior and youth employment status, gender, ethnic origin, age, suspension from school, and current residence?

Employment status

The relationships between incidence of employment of civilian 15- to 17-year-olds, by the delinquency index and other characteristics, are illustrated in Tables 7-10. The logistic regression equations describing these relationships (Tables 7-9) are all statistically significant beyond conventional levels. The logistic regression equation for the total sample (Table 7) produced six variates with values large enough to be considered statistically different from zero. Males generally have greater chances of employment than do females. Blacks and Hispanics have significantly less chances for employment than do nonblacks/non-Hispanics. Fifteen-and sixteen-year-olds have much less chances of employment than do seventeen-year-olds. Students suspended from school also have less chance for employment than do students never suspended from school.

Table 7

Relationship Between Incidence of Employment in 1980 of Civilian 15- to 17-Year-Olds by Delinquency Index and Characteristics (Total Sample, N=1343)

Characteristic	$\bar{X}$ (Std.Dev.)	Incidence of Employment: Logistic Regression Coefficient (Std. Error)	Incidence of Employment: Change in chances of employment associated with characteristic, holding others constant at mean[a].
Delinquency Index	8.552 (8.649)	.012 (.004)	.2 of 100 greater for each unit increase in Delinquency Index
Gender			
Male	.546 (.498)	.230 (.074)	5 of 100 greater than females
Female	.454 (.498)	rc	
Ethnic Origin			
Black	.161 (.367)	-.944 (.096)	21 of 100 less than nonblack, non-Hispanic
Hispanic	.150 (.357)	-.573 (.101)	12 of 100 less than nonblack, non-Hispanic
Nonblack, non-Hispanic	.689 (.463)	rc	

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Table 7 continued

Characteristic	X (Std.Dev.)	Incidence of Employment: Logistic Regression Coefficient (Std. Error)	Incidence of Employment: Change in chances of employment associated with characteristic, holding others constant at mean[a].
Age			
15-16	.507 (.500)	-.794 (.073)	18 of 100 less than 17 year olds
17	.493 (.500)	rc	
Suspended from School			
Yes	.220 (.414)	-.296 (.093)	7 of 100 less than those never suspended from school.
No	.780 (.414)	rc	
Current Residence			
Rural	.231 (.421)	rc	
Urban	.769 (.421)	.179 (.111)	

Table 7 continued

Characteristic	$\bar{X}$ (Std.Dev.)	Incidence of Employment: Logistic Regression Coefficient (Std.Error)	Incidence of Employment: Change in chances of employment associated with characteristic,[a] holding others constant at mean.
SMSA			
Yes	.728 (.445)	.159 (.105)	ns
No	.272 (.445)	rc	
	Intercept	-.279	
	Mean of Criterion Variable (Standard Deviation)	.338 (.473)	
	Model χ^2	286.09,8 degrees of freedom, $P < .001$	

Source: See Table 2; Sample members with missing data were deleted from analyses.

[a]First partial derivative formula see Table 4.

Note: rc = reference category; ns=logistic regression coefficient not statistically significant.

Employment Status (Males Only)

The logistic regression equation for the male sample produced five variates with values large enough to be considered statistically different from zero (Table 8). Blacks and Hispanics have significantly less chances for employment than do nonblacks/non-Hispanics. Fifteen- and sixteen-year-olds have less chances for employment than do seventeen-year olds. Urban males have a greater chance of employment than do rural males.

Table 8

Relationship Between Incidence of Employment in 1980 of Civilian 15- to 17-Year-Olds by Delinquency Index and Characteristics (Male Sample, N=732)

Characteristic	$\bar{X}$ (Std.Dev.)	Incidence of Employment: Logistic Regression Coefficient (Std.Error)	Incidence of Employment: Change in chances of employment associated with characteristic, holding others constant at mean[a].
Delinquency Index	9.766	.0001	n.s
	(9.281)	(.005)	
Gender			
Male	---	---	
Female	---	---	
Ethnic Origin			
Black	.181	-.840	19 of 100 less than nonblack, non-Hispanic
	(.385)	(.129)	
Hispanic	.138	.631	15 of 100 less than nonblack, non-Hispanic
	(.345)	(.145)	
Nonblack, non-Hispanic	.681	rc	
	(.466)		

Table 8 continued

Characteristic	X (Std.Dev.)	Incidence of Employment: Logistic Regression Coefficient (Std.Error)	Incidence of Employment: Change in chances of employment associated with characteristic, holding others constant at mean[a].
Age			
15-16	.538 (.499)	-.683 (.101)	15 of 100 less than 17 year olds
17	.462 (.499)	rc	
Suspended from School			
Yes	.298 (.458)	-.109 (.115)	ns
No	.803 (.457)	rc	
Current Residence			
Rural	.224 (.417)	rc	
Urban	.776 (.417)	.260 (.153)	6 of 100 more than rural males

Table 8 continued

Characteristic	$\bar{X}$ (Std.Dev.)	Incidence of Employment: Logistic Regression Coefficient (Std. Error)	Incidence of Employment: Change in chances of employment associated with characteristic, holding others constant at mean[a].
SMSA			
Yes	.724 (.447)	.155 (.142)	ns
No	.276 (.447)	rc	
Intercept		-.124	
Mean of Criterion Variable (Standard Deviation)		.362 (.480)	
Model χ^2		107.88,7 degrees of freedom, $P < .001$	

Source: See Table 2: Sample members with missing data were deleted from the analyses.

[a]First partial derivative formula see Table 4.

Note: rc= reference category; ns=logistic regression coefficient not statistically significant.

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Employment Status (Females Only)

Five variates were produced from the female logistic regression equation with values large enough to be considered statistically different from zero. Black females have the least chances for employment, followed by Hispanic females. Those females suspended from school have significantly less chances for employment than do females never suspended from school. Again, 15- and 16-year-olds experience less chances for employment than do 17-year-olds.

Table 9

Relationship Between Incidence of Employment in 1980 of Civilian 15- to 17-Year-Olds by Delinquency Index and Characteristics (Female Sample, N=611)

Characteristic	$\bar{X}$ (Std.Dev.)	Incidence of Employment: Logistic Regression Coefficient (Std.Error)	Incidence of Employment: Change in chances of employment associated with characteristic, holding others constant at mean[a]
Delinquency Index	7.136 (7.612)	.039 (.008)	.08 of 100 greater for each unit increase in delinquency.
Gender			
Male	---	---	---
Female	---	---	---
Ethnic Origin			
Black	.136 (.343)	-1.06 (.146)	23 of 100 less than nonblack, non-Hispanic
Hispanic	.164 (.371)	-.506 (.144)	11 of 100 less than nonblack, non-Hispanic
Nonblack, non-Hispanic	.700 (.458)	rc	

Table 9 continued

Characteristic	X (Std.Dev.)	Incidence of Employment: Logistic Regression Coefficient (Std.Error)	Incidence of Employment: Change in chances of employment associated with characteristic, holding others constant at mean[a].
Age			
15-16	.469	-.916	20 of 100 less than 17 year olds
	(.499)	(.107)	
17	.531	rc	
	(.499)		
Suspended from School			
Yes	.127	-.663	14 of 100 less than those never suspended from school
	(.333)	(.163)	
No	.873	rc	
	(.333)		
Current Residence			
Rural	.239	rc	
	(.426)		
Urban	.761	.085	ns
	(.427)	(.164)	

Table 9 continued

Characteristic	$\bar{X}$ (Std.Dev.)	Incidence of Employment: Logistic Regression Coefficient (Std.Error)	Incidence of Employment: Change in chances of employment associated with characteristic, holding others constant at mean[a]
SMSA			
Yes	.732 (.443)	.160 (.157)	ns
No	.268 (.443)	rc	
Intercept		-.243	
Mean of Criterion Variable (Standard Deviation)		.313 (.464)	
Model χ^2		194.88,7 degrees of freedom, $P < .001$	

Source: See Table 2; Sample members with missing data were deleted from analyses.

[a]First partial derivative formula see Table 4.

Note: rc= reference category; ns=logistic regression coefficient not statistically significant.

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The rate of employment for civilian 15- to 17-year-olds, by the delinquency index and other characteristics, is further described in Table 10. Males are employed at consistently higher rates than females except in the Q4 delinquent cell. Blacks are still employed at dramatically lower levels than Hispanics and nonblacks/non-Hispanics regardless of the amount of delinquent acts reported. As the amount of delinquent acts increases for blacks, the disparity in employment rates also increases with a full 10 percent difference in employment rates for blacks vs. Hispanics and a 19 percent difference in employment rates for blacks vs. nonblacks/non-Hispanics in Q4. The results of employment rates for the age category are not startling. Most 15-and 16-year-olds are still enrolled in school and really do not participate in full-time employment to any great extent. Seventeen-year-olds do participate in the full-time labor market; consequently, the 12 percent employment rate difference between 15-to 16-year-olds and 17-year-olds is not particularly significant. Of greater interest however, is the question of why delinquency affects employment in an inverse manner. Forty-three percent of the 15- to 16-year-olds in Q4 are employed and 47 percent of the 17-year-olds are employed; these figures are in contrast to rates of employment of 23 percent and 27 percent, respectively, in the Q1 age category.

Table 10

Rate of Employment[a], Delinquency Index, and Characteristics of Civilian 15- to 17-Year-Olds During 1980

Characteristic	Total	Delinquency Index[b]				
		No Reported Acts	Q1	Q2	Q3	Q4
Sample	.34	.30	.27	.35	.40	.40
Gender						
Male	.36	.33	.31	.35	.41	.38
Female	.31	.28	.22	.35	.38	.42
Ethnic Origin						
Black	.22	.17	.20	.22	.25	.24
Hispanic	.30	.23	.21	.38	.35	.34
Nonblack/Non-Hispanic	.49	.60	.59	.40	.41	.43
Age						
15-16	.37	.31	.36	.40	.35	.43
17	.49	.57	.29	.53	.59	.47
Suspended from School						
Yes	.28	.20	.23	.29	.29	.37
No	.36	.30	.27	.37	.44	.41

Table 10 continued

Characteristic	Total	Delinquency Index[b]				
		No Reported Acts	Q1	Q2	Q3	Q4
Current Residence						
Rural	.33	.27	.24	.36	.42	.35
Urban	.35	.31	.27	.35	.39	.40
SMSA						
Yes	.35	.29	.27	.36	.40	.41
No	.32	.31	.24	.33	.39	.32

Source: See Table 2

[a]The rate of employment is the ratio of the number employed to the number in the civilian population in a particular group.

[b] Delinquency Index is quartiles of self-reported delinquent acts greater than zero.

[c]Age category contains unusually high amount or missing values which were deleted from analysis.

Students suspended from school have lower rates of employment regardless of the number of delinquent acts reported than do those students never suspended from school. The rates of employment for rural vs. urban and SMSA youth are negligible except in the Q4 category. Urban and SMSA youth are employed at a minimum 5 percent higher rate than rural youth with similar amounts of delinquent activity.

Chapter V

SUMMARY

Introduction and Review

This chapter has three parts: (1) a synthesis of the findings; (2) a discussion of the implications of delinquency and youth employment; and (3) suggestions of possible ways to improve the difficult transition from school to work for youth in trouble.

The purpose of this study, as stated in Chapter I, was to determine the relationship between female delinquent behavior and work values, occupational aspirations, and labor market experience. To aid in the analysis, a summary of the relationships between the variates examined and the three criterion variables is presented in Table 11. Again, it should be noted that all analyses were conducted from data of 15-to 17-year-old civilian noninstitutionalized youth who participated in the 1980 New Youth Survey of the National Longitudinal Surveys of Labor Market Experience. For practical purposes, those probabilities that were statistically significant and distinct from zero, but which were small, were interpreted as not related to the criterion variable.

The findings are of two types: variates that show a distinct relationship with the criterion variables, and those whose significance lies in the fact that they do not show any relationship with the criterion variables. Of

the former, females still exhibit lower rates of employment than do males and are more likely to say they would apply for welfare and/or food stamps than are males (Table 9). Suspension from school has a negative relationship concerning future employment rates for both males and females; finally, urban/SMSA males are more likely to be employed than are rural males.

In Table 11, the variates show no relationship with the criterion variables, nor is the delinquency index related to any of the work values statements. Results indicate that the amount of delinquent acts reported has no relationship to occupational aspirations or expected ability to achieve aspirations at age 35. Further, no relationship exists between current residence (rural, urban, SMSA) and occupational aspirations, nor between current residence and work values. Age is not related to occupational aspirations or expected ability to achieve aspirations at age 35. Finally, no relationship exists between Hispanic males and seeking additional education to gain employment.

Table 11

Summary of Relationships of Perceived Work Values, Occupational Aspirations, and Labor Market Experiences

Variate	Relationship with Criterion Variable
Delinquency Index	Males and females have a small but significant positive relationship with number of delinquent acts reported and labor force and employment rates. As delinquency increases so does rate of employment.
Males	Less willing to go on welfare or apply for food stamps than females. Have higher rates of employment than females.
Females	More willing to go on welfare or apply for food stamps. Higher occupational aspirations than males regardless of delinquency rate. Lower employment rates than males.
Black (males)	More willing to seek additional education to gain employment. Slightly more willing to go on welfare. May be more likely to be unemployed than nonblack, non-Hispanic. As delinquency increases, employment rate disparity with others increases dramatically. Higher expectations of achieving occupational aspiration at age 35 than other males.
Black (females)	More willing to seek additional education to gain employment. More willing to go on welfare and apply for food stamps than other females. Higher occupational aspirations and expectations of achieving occupational aspirations than all others. Lower employment rates than other females.

Table 11 continued

Variate	Relationship with Criterion Variable
Hispanic (males)	Lower employment rates than nonblack, non-Hispanic.
Hispanic (females)	More willing to go on welfare and apply for food stamps than nonblack, non-Hispanics. Higher occupational aspirations than males. Lower employment rates than males.
Age (15-16)	More willing to go on welfare than 17-year-olds. May be less likely to be employed than 17-year-old male or female.
Suspended from school	Males suspended from school are more willing to apply for food stamps than nonsuspended males. Suspension from school results in slightly lower employment rates for males and significantly lower rates for females. Suspension from school results in slightly less chance of females believing they can achieve their occupational aspirations at age 35. Females suspended from school have much lower rates of employment than nonsuspended females.
Current residence	Urban or SMSA males may be more likely to be employed than rural males.

Source: These results are summarized from the findings in Tables 4-10.

Discussion

The findings indicate that no significant relationship exists between delinquency, work values, and occupational aspirations. However, inherent in these "no relationships" are several important implications. As delinquency increases, a person's work values remain stable: that is, other contributing characteristics/factors have more influence over a person's work values than does the amount of delinquent acts the person has reported. Females are more willing to go on welfare or apply for food stamps at consistently higher rates than are males regardless of the amount of delinquency involved. Black females are more willing to seek additional education to gain employment and may have higher occupational aspirations than males, yet their rates of employment remain far below nonblack/non-Hispanic males and females. Since delinquency does not appear to affect a person's occupational aspirations, why then are delinquents not given the opportunity to engage in meaningful, relevant programs of instruction at school? As reported in the review of literature, school becomes a very bitter and unsatisfying experience to many delinquent students (Shafer & Polk, 1967). Teaching, without relating the subject matter to the needs and aspirations of the students, may cause the student to question the relevancy of education and to drop out, thus perpetuating the delinquent cycle (Ryan, 1983). Students today are increasingly aware that future employment opportunities will not exist

for those lacking job skills. Teachers, peers, and a general curriculum can produce negative consequences for the delinquent and thus can unknowingly perpetuate the problem many are trying to solve.

A rather unusual relationship exists between delinquency and labor market experience of youth. As the self-reported acts of delinquency increase, so do the employment rates. These findings are contrary to research cited in the literature review concerning the employment status of official delinquents. Miller (1979a) reports that 15 percent of all employers have unyielding opposition to employing juvenile offenders and 75 percent consider arrest records to be relevant information in deciding whom to hire. These same employers may be employing youth who have committed delinquent acts but who have simply not been caught. In many instances these young employees may be considered by their boss to be excellent workers. The implication for educating business/industry personnel, school administrators, and teachers on the nature and extent of delinquency, as well as the legal ramifications of hiring procedures concerning delinquents, is clearly relevant.

Current Residence

No relationship exists between current residence and work values or occupational aspirations. Where one resides no longer dictates an individual's value structure or aspirations. This is a positive effect for most youth who now

have the opportunity to expand their horizons beyond their own backyard. These findings are merely a reflection of a change in our society due to increased mobility, instant communication systems, and other high technologies. Unfortunately, the negative consequence is that delinquency in rural areas has increased sharply and rates of employment for rural youth, regardless of delinquent activity, still lag behind the urban and SMSA areas.

Age

There is no significant relationship between age and occupational aspirations or the expected ability to achieve aspirations at age 35. These results are similar to findings cited in the review of literature. Youth between 15-17 years old still maintain an idealistic approach to life and do not have significant changes in aspirations from age 15-16 to age 17. Delinquency is concentrated in the 15-17 age category (Table 3). Sixteen-year-olds have the highest concentration of delinquency followed by seventeen-year-olds and fifteen-year-olds. Seventeen-year-olds are more concentrated in the Q3 and Q4 index cells which yield more repetitive acts of delinquency. Both 15- and 16-year-olds have lower rates of employment than 17-year-olds regardless of the amount of delinquent acts reported. The difference in employment rates between these groups is not unusual as most 15- to 16-year-olds are full-time students and are not participating in the labor market. The major problem

is that 15- to 17-year-olds commit approximately 33 percent of all delinquent activities and many are involved in repetitive delinquent activities. Again the implications are clear that society must be made aware of the extent and nature of the burdens, legal and otherwise, that juvenile delinquency has placed on our nation. Schools can play a pivotal role in this educational process.

Hispanics

There is no relationship between Hispanic males and the work value statements. Unlike other minority groups, Hispanic males are less likely to say they will seek additional education to gain employment and yet enjoy a higher rate of employment than do blacks; but this rate is still significantly less than the rate for nonblacks/non-Hispanics. The results further reveal that Hispanic males are less willing to apply for food stamps or go on welfare than are black males. The occupational aspiration level of Hispanic males is lower than that of females yet their employment rate is consistently higher than that of the females. Hispanic females are more likely to say they would go on welfare than are blacks and nonblacks/non-Hispanics. They are also more likely to say they would apply for food stamps than nonblacks/non-Hispanics but less likely than are blacks. The occupational aspirations of Hispanic females are higher than those of males but they are less likely to say they would seek additional education to gain employment

than are blacks, or nonblacks/non-Hispanics. These results confirm the wide disparity that still exists between minority groups and nonblacks/non-Hispanics concerning issues of equitable education, work values, occupational aspirations, treatment as a delinquent, and employment status. Although advances have been made in eliminating discrimination based on sex, race, or age, these findings indicate that inequities still persist.

Suspension from School

There is a surprisingly strong relationship between suspension from school and employment status. Males suspended from school are less likely to be employed than are males not suspended from school. Females experience a much more substantial drop in employment rates than do males when suspended from school (14 percent vs. 6 percent). Males are more inclined to say they would apply for food stamps if they have been suspended from school than are those males not suspended from school. Finally, females suspended from school are less likely to believe they can achieve their occupational aspirations than those females never suspended from school. The results suggest that suspension from school is far more detrimental to a student than one has been led to believe. Alternative methods, other than suspension, should be implemented in an effort to keep the students in contact with the school system.

Recommendations

One way to view the information presented is to dismiss it as unimportant. Within this view, delinquent youth represent a small part of the youth population, a minor portion of the total population, and an insignificant political faction. In an era dedicated to austerity and intense competition for social and education dollars, perhaps the money needed to reduce the inequities experienced by youth in trouble is simply greater than the potential rewards.

Equity Principles

Another way to view the labor market experiences and accompanying economic deficiencies of female and minority delinquents is to add them to the already growing list of inequities visible in our society by race, age, and gender. To be sure, in the past 15 years, inequality has continued to be a major problem in our society despite billions of dollars spent to alleviate the problem. The key, for advocates of equitable programs for delinquent youth, is the documentation of the inequalities now in existence and the development of a political force powerful enough to advocate change.

Documenting the consequences of depressed labor market experiences and economic conditions of delinquent youth is a positive step. Brenner (1980) believes society loses the potential output unemployed youths could have created

had they been employed. Their idleness also reduces their personal and family incomes, with an unknown effect on government outlays for such transfers as food stamps and public assistance payments (see also, Passmore & Welch, 1983). The criminal justice system has estimated the cost of prosecuting a delinquent on shoplifting charges (greater than $50.00 stolen) at approximately $2,700.00 (Taggert, 1980), thus a slight increase in the employment rate of youth may have a substantial effect on reducing the outlay of expenditures in our juvenile judicial system.

Education

Vocational education could intervene in the career development of many delinquent youth by providing guidance, counseling, role models, sources of incentive skill training, and multi-million dollar facilities. Many of these programs presently exist at vocational-technical centers but have not been made available to juvenile offenders. Juvenile institutions can serve the needs of both delinquents and the community, but they cannot do both effectively until treatment becomes paramount and integrated with vocational education. If such a concept is to materialize, those in vocational education must assume a change agent role.

Integrated System

Another recommendation is the development of an integrated system comprised of the local juvenile justice system and the local education agencies. Presently, too

much duplication of services, too little knowledge of how each of the separate agencies operate, and a lack of co-ordinated time lines prevail. Too often delinquents are unable to enter local vocational education programs because of the time of year when sentenced. Education programs have specific entrance and exit time lines which can be met if simple coordination between agencies is available. Local task forces need to be developed to investigate ways of improving the integration of these often overlapping agencies.

Future Research

The final recommendations pertain to areas for further research suggested by this study:

1. A comparative study could be carried out with a delinquency index developed to incorporate the seriousness of the offense. This study would isolate delinquent behavior in much narrower guidelines and enhance the development of very specific intervention strategies.

2. A similar study could be carried out using a different data base than the NLS data in an effort to compare results between the two data bases (see Gold & Reimer, 1975).

3. A more in-depth study (longitudinal if possible) of the relationship between dropouts, delinquency, and labor market experiences is needed.

4. This study should be replicated as soon as possible (1985) to investigate the changing trends and patterns of relationships between the variates and criterion variables.

5. Pilot programs dealing with intervention strategies for (potential) delinquents should be instituted in vocational-technical centers nationwide. These programs could be monitored and designed with the idea of easy transferability from school to school if deemed of positive value.

6. Research should be conducted to determine if any inherent bias (race) exists within the present NLS questionnaires utilized for this study.

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APPENDIX

Table A-1

SUMMARY OF VARIABLES

Appendix

Table A-1

Summary of Variables

Criterion Variables	NLS Questionnaire Number	Year of Interview	NLS Reference Numbers[a]	NLS Variable Numbers[b]
Commitment to work values				
If at the age of 35 you could not support yourself or family would you do the following:				
Seek more education to gain employment?	S22Q04A	1979	1709	1505
Go on welfare?	S22Q04B	1979	1710	1506
Enter a government-sponsored training program?	S22Q04C	1979	1711	1507
Apply for food stamps?	S22Q04D	1979	1712	1508
Shoplift?	S22Q4E	1979	1713	1509
Occupational aspirations				
Occupational aspirations at age 35	S22Q01A2	1979	1701	1497
Expected ability to achieve occupational aspirations at age 35	S22Q03	1979	1708	1504

Table A-1 continued

Criterion Variables	NLS Questionnaire Number	Year of Interview	NLS Reference Numbers[a]	NLS Variable Numbers[b]
Occupational aspirations in five years	S22Q10A	1979	1720	1516
Occupational preference in five years	S22Q10B	1979	1721	1517
Labor force status	Section 6-1	1981	4063	3995
What were you doing most of last week: working, going to school, or something else?				
1. Working				
2. With job not at work				
3. Unemployed				
4. Keeping house				
5. Going to school				
6. Unable to work				
7. Other				
8. In armed forces				

Table A-1 continued

Criterion Variables	NLS Questionnaire Number	Year of Interview	NLS Reference Numbers[a]	NLS Variable Numbers[b]
Employment status	Section 6-1	1981	4063	3995
Derived from labor force status				
employed = 1				
otherwise = 0				
Variates				
Gender specified as	N/A	1980	2148	1697
male = 1				
female = 2				
Age	S01Q01	1980	2202	5
Exactly how old are you today?				
15-16				
17				

Table A-1 continued

Criterion Variables	NLS Questionnaire Number	Year of Interview	NLS Reference Numbers[a]	NLS Variable Numbers[b]
Race	S24Q01	1979	2147	1696
Racial ethnic origin with which respondent identifies most closely?				
Hispanic = 1				
Black = 2				
Nonblack, non-Hispanic = 3				
Suspended from school	S05Q01	1980	2314	1307
Have you ever been suspended from school, even for a short period of time?				
yes = 1				
no = 0				
Current Residence				
Is R's current residence urban or rural (1980)	N/A	1980	3935.10	4095
rural = 0				
urban = 1				

Table A-1 continued

Criterion Variables	NLS Questionnaire Number	Year of Interview	NLS Reference Numbers[a]	NLS Variable Numbers[b]
Is R's current residence in SMSA (1980)?	N/A	1980	3935.20	4096
not in SMSA = 0				
SMSA not center city = 1				
SMSA center city (don't know location) = 2				
SMSA in center city = 3				

Source: 1979-1982 National Longitudinal Surveys of Labor Force Behavior (National Opinion Research Center & Center for Human Resources Research, 1979-1982; Center for Human Resources Research, 1979-1982.

[a]Reference number is a unique identification number assigned to each variable which determines its relative position in codebook.

[b]Variable number identifies the variable location on the computer tape.

APPENDIX

Table A-2

Duncan Socioeconomic Conversion

APPENDIX

Table A-2
Duncan Socioeconomic Conversion

("N.e.c." means "not elsewhere classified.")

Occupation Code	Duncan SEI Score	PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS
001	77	Accountants
002	85	Architects
		Computer specialists
003	65	Computer programmers
004	65	Computer systems analysts
005	65	Computer specialists, n.e.c.
		Engineers
006	87	Aeronautical and astronautical engineers
010	90	Chemical engineers
011	84	Civil engineers
012	84	Electrical and electronic engineers
013	86	Industrial engineers
014	80	Mechanical engineers
015	83	Metallurgical and materials engineers
020	85	Mining engineers
021	81	Petroleum engineers
022	87	Sales engineers
023	87	Engineers, n.e.c.
024	83	Farm management advisors
025	48	Foresters and conservationists
026	83	Home management advisors
		Lawyers and judges
030	93	Judges
031	92	Lawyers
		Librarians, archivists, and curators
032	60	Librarians
033	75	Archivists and curators
		Mathematical specialists
034	81	Actuaries
035	80	Mathematicians
036	81	Statisticians
		Life and physical scientists
042	80	Agricultural scientists
043	62	Atmospheric and space scientists
044	80	Biological scientists
045	79	Chemists
051	80	Geologists
052	80	Marine scientists
053	80	Physicists and astronomers
054	77	Life and physical scientists, n.e.c.
055	66	Operations and systems researchers and analysts
056	84	Personnel and labor relations workers

Occupation Code	Duncan SEI Score	PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS--Continued
		Physicians, dentists, and related practitioners
061	75	Chiropractors
062	96	Dentists
063	79	Optometrists
064	81	Pharmacists
065	92	Physicians, medical and osteopathic
071	58	Podiatrists
072	78	Veterinarians
073	58	Health practitioners, n.e.c
		Nurses, dietitians, and therapists
074	39	Dietitians
075	44	Registered nurses
076	60	Therapists
		Health technologists and technicians
080	48	Clinical laboratory technologists and technicians
081	48	Dental hygienists
082	60	Health record technologists and technicians
083	48	Radiologic technologists and technicians
084	48	Therapy assistants
085	52	Health technologists and technicians, n.e.c.
		Religious workers
086	52	Clergymen
090	57	Religious workers, n.e.c.
		Social scientists
091	74	Economists
092	81	Political scientists
093	81	Psychologists
094	81	Sociologists
095	65	Urban and regional planners
096	81	Social scientists, n.e.c.
		Social and recreation workers
100	64	Social workers
101	67	Recreation workers
		Teachers, college and university
102	84	Agriculture teachers
103	84	Atmospheric, earth, marine, and space teachers
104	84	Biology teachers
105	84	Chemistry teachers

Table A-2 continued

Occupation Code	Duncan SEI Score	PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS--Continued
110	84	Physics teachers
111	84	Engineering teachers
112	84	Mathematics teachers
113	84	Health specialties teachers
114	84	Psychology teachers
115	84	Business and commerce teachers
116	84	Economics teachers
120	84	History teachers
121	84	Sociology teachers
122	84	Social science teachers, n.e.c.
123	53	Art, drama, and music teachers
124	64	Coaches and physical education teachers
125	84	Education teachers
126	84	English teachers
130	84	Foreign language teachers
131	72	Home economics teachers
132	84	Law teachers
133	84	Theology teachers
134	84	Trade, industrial, and technical teachers
135	84	Miscellaneous teachers, college and university
140	84	Teachers, college and university, subject not specified
		Teachers, except college and university
141	61	Adult education teachers
142	71	Elementary school teachers
143	72	Prekindergarten and kindergarten teachers
144	70	Secondary school teachers
145	62	Teachers, except college and university, n.e.c.
		Engineering and science technicians
150	62	Agriculture and biological technicians, except health
151	62	Chemical technicians
152	67	Draftsmen
153	62	Electrical and electronic engineering technicians
154	64	Industrial engineering technicians
155	62	Mechanical engineering technicians
156	53	Mathematical technicians
161	48	Surveyors
162	62	Engineering and science technicians, n.e.c.
		Technicians, except health, and engineering and science
163	79	Airplane pilots
164	69	Air traffic controllers
165	61	Embalmers
170	48	Flight engineers
171	69	Radio operators
172	62	Tool programmers, numerical control
173	62	Technicians, n.e.c.
174	65	Vocational and educational counselors
		Writers, artists, and entertainers
175	60	Actors
180	62	Athletes and kindred workers
181	76	Authors
182	45	Dancers
183	71	Designers
184	82	Editors and reporters
185	52	Musicians and composers
190	67	Painters and sculptors
191	50	Photographers
192	82	Public relations men publicity writers
193	65	Radio and television announcers
194	40	Writers, artists, and entertainers, n.e.c.
195	65	Research workers, not specified
		MANAGERS AND ADMINISTRATORS, EXCEPT FARM
201	61	Assessors, controllers, treasurers; local public administration
202	80	Bank officers and financi managers
203	51	Buyers and shippers, farm products
205	72	Buyers, wholesale and ret trade
210	74	Credit men
211	59	Funeral directors
212	74	Health administrators
213	58	Construction inspectors, public administration
215	55	Inspectors, except construction, public administration
216	32	Managers and superintend building
220	74	Office managers, n.e.c.
221	50	Officers, pilots, and pursers; ship

Table A-2 continued

Occupation Code	Duncan SEI Score	MANAGERS AND ADMINISTRATORS, EXCEPT FARM--Continued
222	80	Officials and administrators; public administration, n.e.c.
223	60	Officials of lodges, societies, and unions
224	61	Postmasters and mail superintendents
225	75	Purchasing agents and buyers, n.e.c.
226	59	Railroad conductors
230	38	Restaurant, cafeteria, and bar managers
231	72	Sales managers and department heads, retail trade
233	74	Sales managers, except retail trade
235	78	School administrators, college
240	72	School administrators, elementary and secondary
245	62	Managers and administrators, n.e.c.
		SALES WORKERS
260	66	Advertising agents and salesmen
261	40	Auctioneers
262	35	Demonstrators
264	09	Hucksters and peddlers
265	66	Insurance agents, brokers, and underwriters
266	27	Newsboys
270	62	Real estate agents and brokers
271	72	Stock and bond salesmen
280	41	Salesmen and sales clerks, n.e.c.
		CLERICAL AND UNSKILLED WORKERS
301	52	Bank tellers
303	44	Billing clerks
305	51	Bookkeepers
310	44	Cashiers
311	44	Clerical assistants, social welfare
312	44	Clerical supervisors, n.e.c.
313	43	Collectors, bill and account
314	44	Counter clerks, except food
315	40	Dispatchers and starters, vehicle
320	44	Enumerators and interviewers
321	59	Estimators and investigators, n.e.c.
323	44	Expediters and production controllers
325	44	File clerks
326	62	Insurance adjusters, examiners, and investigators
330	44	Library attendants and assistants
331	53	Mail carriers, post office

Occupation Code	Duncan SEI Score	CLERICAL AND UNSKILLED WORKERS--Continued
332	43	Mail handlers, except post off.
333	28	Messengers and office boys
334	44	Meter readers, utilities
		Office machine operators
341	45	Bookkeeping and billing machine operators
342	45	Calculating machine operators
343	45	Computer and peripheral equipment operators
344	45	Duplicating machine operators
345	45	Key punch operators
350	45	Tabulating machine operators
355	45	Office machine operators,
360	44	Payroll and timekeeping clerks
361	45	Postal clerks
362	44	Proofreaders
363	68	Real estate appraisers
364	44	Receptionists
		Secretaries
370	61	Secretaries, legal
371	61	Secretaries, medical
372	62	Secretaries, n.e.c.
374	24	Shipping and receiving clerks
375	44	Statistical clerks
376	61	Stenographers
381	44	Stock clerks and storekeepers
382	63	Teacher aides, exc. school monitors
383	22	Telegraph messengers
384	47	Telegraph operators
385	45	Telephone operators
390	60	Ticket, station, and express agents
391	61	Typists
392	42	Weighers
394	44	Miscellaneous clerical workers
395	44	Not specified clerical workers
		CRAFTSMEN AND KINDRED WORKERS
401	22	Automobile accessories install.
402	22	Bakers
403	16	Blacksmiths
404	33	Boilermakers
405	39	Bookbinders
410	27	Brickmasons and stonemasons
411	32	Brickmasons and stonemasons, apprentices
412	20	Bulldozer operators
413	22	Cabinetmakers
415	19	Carpenters
416	31	Carpenter apprentices
420	12	Carpet installers
421	19	Cement and concrete finishers

Table A-2 continued

Occupation Code	Duncan SEI Score	CRAFTSMEN AND KINDRED WORKERS--Continued
422	52	Compositors and typesetters
423	40	Printing trades apprentices, exc. pressmen
424	21	Cranemen, derrickmen, and hoistmen
425	40	Decorators and window dressers
426	48	Dental laboratory technicians
430	44	Electricians
431	37	Electrician apprentices
433	49	Electric power linemen and cablemen
434	55	Electrotypers and stereotypers
435	47	Engravers, exc. photoengravers
436	23	Excavating, grading, and road machine operators; exc. bulldozer
440	17	Floor layers, exc. tile setters
441	49	Foremen, n.e.c.
442	23	Forgemen and hammermen
443	18	Furniture and wood finishers
444	40	Furriers
445	25	Glaziers
446	22	Heat treaters, annealers, and temperers
450	22	Inspectors, scalers, and graders; log and lumber
452	41	Inspectors, n.e.c.
453	36	Jewelers and watchmakers
454	34	Job and die setters, mutal
455	58	Locomotive engineers
456	45	Locomotive firemen
461	33	Machinists
462	41	Machinist apprentices
		Mechanics and repairmen
470	27	Air conditioning, heating, and refrigeration
471	48	Aircraft
472	19	Automobile body repairmen
473	19	Automobile mechanics
474	25	Automobile mechanic apprentices
475	27	Data processing machine repairmen
480	27	Farm implement
481	27	Heavy equipment mechanics, incl. diesel
482	27	Household appliance and accessory installers and mechanics
483	10	Loom fixers
484	36	Office machine
485	36	Radio and television
486	21	Railroad and car shop
491	34	Mechanic, exc. auto, apprentices
492	27	Miscellaneous mechanics and repairmen
495	27	Not specified mechanics and repairmen

Occupation Code	Duncan SEI Score	CRAFTSMEN AND KINDRED WORKERS--Continued
501	19	Millers; grain, flour, and feed
502	31	Millwrights
503	12	Molders, metal
504	33	Molder apprentices
505	43	Motion picture projectionists
506	39	Opticians, and lens grinders polishers
510	16	Painters, construction and maintenance
511	29	Painter apprentices
512	14	Paperhangers
514	43	Pattern and model makers, exc. paper
515	63	Photoengravers and lithographer
516	38	Piano and organ tuners and repairmen
520	25	Plasterers
521	29	Plasterer apprentices
522	34	Plumbers and pipe fitters
523	33	Plumber and pipe fitter apprentices
525	50	Power station operators
530	46	Pressmen and plate printers, printing
531	40	Pressman apprentices
533	22	Rollers and finishers, metal
534	15	Roofers and slaters
535	33	Sheetmetal workers and tinsmith
536	33	Sheetmetal apprentices
540	34	Shipfitters
542	12	Shoe repairmen
543	17	Sign painters and letterers
545	45	Stationary engineers
546	24	Stone cutters and stone carver
550	34	Structural metal craftsmen
551	22	Tailors
552	49	Telephone installers and repairmen
554	49	Telephone linemen and splicers
560	28	Tile setters
561	49	Tool and die makers
562	41	Tool and die maker apprentices
563	21	Upholsterers
571	35	Specified craft apprentices, n.e.c.
572	39	Not specified apprentices
575	25	Craftsmen and kindred workers, n.e.c.
580	-4	Former members of the Armed Forces
		OPERATIVES, EXCEPT TRANSPORT
601	32	Asbestos and insulation worker

Table A-2 continued

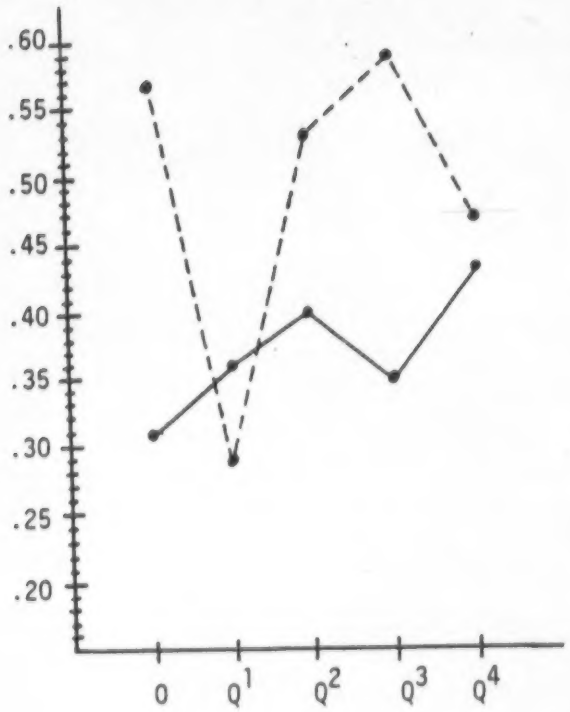
Occupation Code	Duncan SEI Score	OPERATIVES, EXCEPT TRANSPORT--Continued
602	18	Assemblers
603	11	Blasters and powdermen
604	18	Bottling and canning operatives
605	25	Chainmen, rodmen, and axmen; surveying
610	19	Checkers, examiners, and inspectors; manufacturing
611	18	Clothing ironers and pressers
612	19	Cutting operatives, n.e.c.
613	23	Dressmakers and seamstresses, except factory
614	24	Drillers, earth
615	25	Dry wall installers and lathers
620	12	Dyers
621	20	Filers, polishers, sanders, and buffers
622	18	Furnacemen, smeltermen, and pourers
623	18	Garage workers and gas station attendants
624	17	Graders and sorters, manufacturing
625	12	Produce graders and packers, except factory and farm
626	29	Heaters, metal
630	15	Laundry and dry cleaning operatives, n.e.c.
631	29	Meat cutters and butchers, exc. manufacturing
633	16	Meat cutters and butchers, manufacturing
634	18	Meat wrappers, retail trade
635	20	Metal platers
636	46	Milliners
640	16	Mine operatives, n.e.c.
641	18	Mixing operatives
642	15	Oilers and greasers, exc. auto
643	18	Packers and wrappers, except meat and produce
644	18	Painters, manufactured articles
645	42	Photographic process workers
		Precision machine operatives
650	25	Drill press operatives
651	22	Grinding machine operatives
652	22	Lathe and milling machine operatives
653	21	Precision machine operatives, n.e.c.
656	19	Punch and stamping press operatives
660	20	Riveters and fasteners
661	16	Sailors and deckhands
662	05	Sawyers
663	18	Sewers and stitchers
664	09	Shoemaking machine operatives
665	24	Solderers
666	17	Stationary firemen
		Textile operatives
670	03	Carding, lapping, and combing operatives
671	21	Knitters, loopers, and toppers
672	04	Spinners, twisters, and winders
673	06	Weavers
674	06	Textile operatives, n.e.c.
680	24	Welders and flame-cutters
681	20	Winding operatives, n.e.c.
690	19	Machine operatives, miscellaneous specified
692	19	Machine operatives, not specific
694	19	Miscellaneous operatives
695	19	Not specified operatives
		TRANSPORT EQUIPMENT OPERATIVES
701	24	Boatmen and canalmen
703	34	Bus drivers
704	33	Conductors and motormen, urban rail transit
705	31	Deliverymen and routemen
706	17	Fork lift and tow motor operatives
710	03	Motormen; mine, factory, logging camp, etc.
711	19	Parking attendants
712	42	Railroad brakemen
713	44	Railroad switchmen
714	10	Taxicab drivers and chauffeurs
715	15	Truck drivers
		LABORERS, EXCEPT FARM
740	17	Animal caretakers, exc. farm
750	07	Carpenters' helpers
751	07	Construction laborers, exc. carpenter's helpers
752	11	Fishermen and oystermen
753	09	Freight and material handlers
754	08	Garbage collectors
755	11	Gardeners and groundskeepers, exc. farm
760	11	Longshoremen and stevedores
761	04	Lumbermen, raftsmen, and woodchoppers
762	17	Stock handlers
763	08	Teamsters
764	08	Vehicle washers and equipment cleaners
770	08	Warehousemen, n.e.c.
780	08	Miscellaneous laborers
785	08	Not specified laborers

Table A-2 continued

Occupation Code	Duncan SEI Score	
		FARMERS AND FARM MANAGERS
801	14	Farmers (owners and tenants)
802	36	Farm managers
		FARM LABORERS AND FARM FOREMEN
821	20	Farm foremen
822	06	Farm laborers, wage workers
823	17	Farm laborers, unpaid family workers
824	22	Farm service laborers, self-employed
		SERVICE WORKERS, EXC. PRIVATE HOUSEHOLD
		Cleaning service workers
901	13	Chambermaids and maids, except private household
902	08	Cleaners and charwomen
903	13	Janitors and sextons
		Food service workers
910	19	Bartenders
911	11	Busboys
912	15	Cooks, except private household
913	11	Dishwashers
914	17	Food counter and fountain workers
915	16	Waiters
916	11	Food service workers, n.e.c., except private household
		Health service workers
921	38	Dental assistants
922	25	Health aides, exc. nursing
923	51	Health trainees
924	37	Lay midwives
925	14	Nursing aides, orderlies, and attendants
926	22	Practical nurses
		Personal service workers
931	31	Airline stewardesses
932	19	Attendants, recreation and amusement
933	26	Attendants, personal service, n.e.c.
934	08	Baggage porters and bellhops
935	17	Barbers
940	30	Boarding and lodging house keepers
941	08	Bootblacks
942	28	Child care workers, exc. private household
943	10	Elevator operators
944	17	Hairdressers and cosmetologists
945	31	Personal service apprentices

Occupation Code	Duncan SEI Score	
		SERVICE WORKERS, EXC. PRIVATE HOUSEHOLD--Continued
950	31	Housekeepers, exc. private household
952	26	School monitors
953	25	Ushers, recreation and amusement
954	11	Welfare service aides
		Protective service workers
960	18	Crossing guards and bridge tenders
961	37	Firemen, fire protection
962	18	Guards and watchmen
963	21	Marshals and constables
964	41	Policemen and detectives
965	34	Sheriffs and bailiffs
		PRIVATE HOUSEHOLD WORKERS
980	07	Child care workers, private household
981	07	Cooks, private household
982	11	Housekeepers, private household
983	12	Laundresses, private house
984	07	Maids and servants, private household

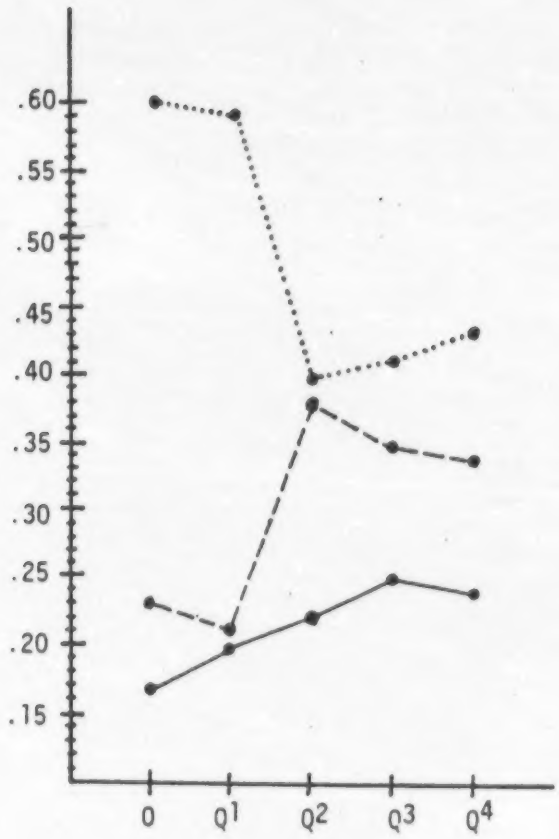
RATE OF EMPLOYMENT



Age

15-16= ————————
17= - - - - - - - -

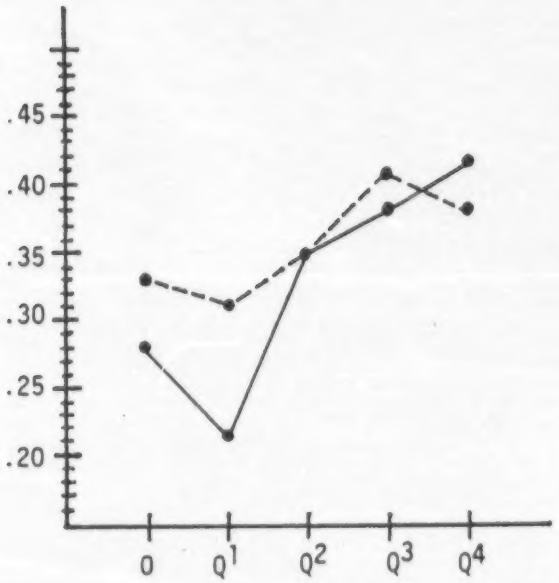
RATE OF EMPLOYMENT



Ethnic Origin

Black= ————————————
Hispanic= - - - - - - - - - - - -
Non-Black/Non-Hispanic= .....

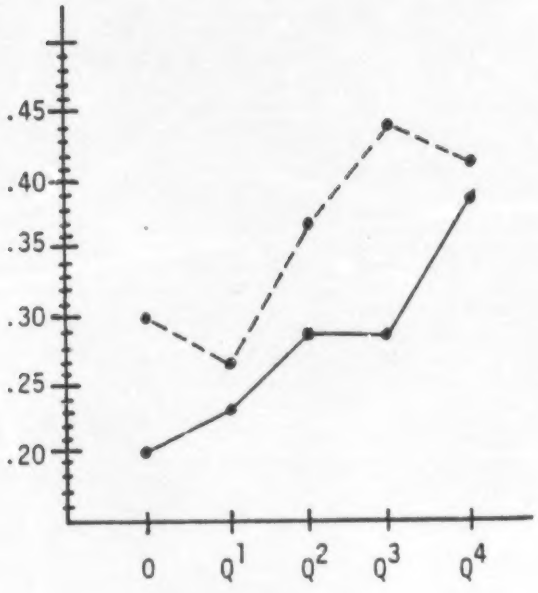
RATE OF EMPLOYMENT



Rate of Employment of Civilian 15-17 Year Olds
by Delinquency Index and Sex during 1980

Males= - - - - - -
Females= ————

RATE OF EMPLOYMENT



Suspension from School

Yes= ————————
No= - - - - - - - -